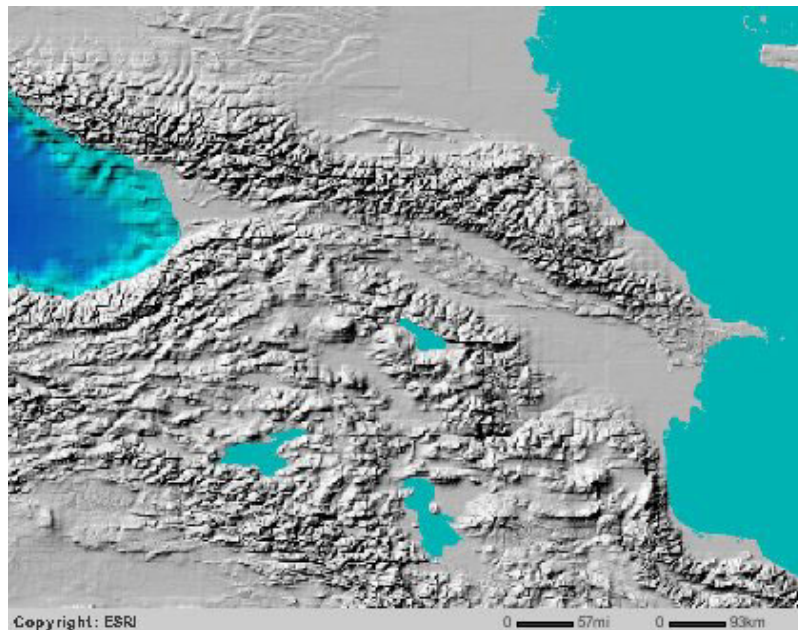


Water Management in the South Caucasus
USAID Contract No. OUT-LAG-I-804-99-00017-00



**NATURAL RESOURCES MANAGEMENT
IN THE SOUTH CAUCASUS**

**Laws and Institutional Issues
Affecting Water Management in the South Caucasus**

Prepared for:
**U.S. Agency for International Development
Mission for the South Caucasus**

Prepared by:
Development Alternatives, Inc.

February 2002

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Water Management in the South Caucasus

February 28, 2002

Mr. Peter Argo
Director
Office of Energy & Environment
U.S. Agency for International Development
20 Telavi Street, 5th Floor
Tbilisi 380003 Georgia

Dear Mr. Argo,

We are pleased to provide to you with the attached report titled "Natural Resources Management in the South Caucasus" for the project activities conducted to date in Armenia, Azerbaijan, and Georgia as part of the Water Management in the South Caucasus Project.

The report is part of a series of activities for Laws and Institutional Issues Affecting Water Resource Management in the Kura-Aras River Basin that address legal and related policy and institutional conditions and experiences relevant to achieving the objectives of the Project. The report titled "International Experiences in Water Management" was submitted on January 31, 2001.

This report summarizes some of the tasks completed as part of the Activity 5, Improved Legal Framework for Water Management in the Kura-Aras Basin. This report was prepared by Malcolm F. Baldwin, Environmental Law Specialist, based on short-term technical assistance and the support of Ms. Eka Otashvili, Policy and Legal Specialist, and the DAI Water Advisors in each of the three countries.

This report is intended to be a "working document" and a focal point of discussions with the local agencies with interest in this subject to increase the dialogue for sustainable water management in the South Caucasus. The report will be updated following a detailed review by the various stakeholders.

We are pleased to distribute this document to the interested parties in the region on behalf of USAID. Thank you for your assistance in support of this project.

Sincerely,

Paul C. Dreyer, PE
Chief of Party

Enclosure

cc: Dr. Michael Boyd, USAID/Armenia
Mr. William McKinney, USAID/Azerbaijan
Mr. Edwin Stains, DAI/Bethesda
Mr. Malcolm F. Baldwin, IRG/Washington

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Natural Resources Management in the South Caucasus

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NATURAL RESOURCES MANAGEMENT IN THE SOUTH CAUCASUS

1. INTRODUCTION

1.1 Report Context

This report was prepared by Malcolm F. Baldwin, an Environmental Law Specialist, as a consultant to Development Alternatives, Inc. (DAI) for the Water Management in the South Caucasus Project that is funded by the U.S. Agency for International Development (USAID). The report is part of a series of activities for Laws and Institutional Issues Affecting Water Resource Management in the Kura-Aras River Basin that address legal and related policy and institutional conditions and experiences relevant to achieving the objectives of the Project.

The intent of this activity is to help establish the context within which the Project operates, to help guide the legal and institutional inquiries and approach of the project's two pilot projects in the Alazani River Basin in Azerbaijan and Georgia, and the Khrami-Debed River Basin in Armenia and Georgia. It is also designed to help stakeholders as well as policy makers to begin laying the groundwork for any future water resource management-related actions and agreements that may be desirable.

Agreements might, for example, be required between key stakeholders within each country to establish effective water resource monitoring and information gathering, or bi-lateral information sharing agreements between Georgia-Armenia or Georgia-Azerbaijan. Ultimately, as with many other international river basins, broader and more inclusive agreements among the five affected countries may be needed.

A previous report, *International Experiences in Water Management*, dated January 2002 provides information on experiences from around the world that highlight the progress and pitfalls affecting integrated water management. It cites approaches and examples that may provide ideas and context for grappling with the policy, legal, and institutional issues likely to arise in the course of the project's two pilot studies and certainly in any subsequent efforts to establish an action program for the Kura-Aras River Basin.

1.2 Limitations of Legal Analysis

One cannot get an accurate picture of water resource management in any of these three countries by reading even their post Soviet legislation, or by reviewing the institutions established, many of which remain from the Soviet period. In Soviet times laws were constructed around ideals, rather than reflecting norms and experiences – quite the opposite approach than that taken by the common law countries like England and the United States. There, as famously described by Oliver Wendell Holmes: “The life of the law has not been logic; it has been experience...At any given time [it] pretty nearly corresponds ...with what is then understood to be convenient.”¹

Thus, whereas in the United States water legislation reflects experience with changing concepts of property rights and rapid economic change and growth², laws among the three countries are generally couched in general terms to state principles without action-forcing or self-enforcing mechanisms. They are not designed to reflect established norms or to provide practical guidelines concerning what can be widely accepted and readily enforced. Hence without field assessments one cannot determine what actually is happening, for example, with respect to water resource use and management within each country, and what incentives are at work favoring or discouraging integrated water management.

¹ Morris, Edmund, *Theodore Rex*, Random House, New York, 2001, p. 130.

² Getches, David, *Water Law in a Nutshell*, West Publishing Co., St. Paul, Minn., 1997, describing the evolution of water rights as property, and de Soto, Hernando, *The Mystery of Capital*, Basic Books, New York, 2000, describing how formal property law in the United States evolved to reflect the realities of informal practices.

Only at that level can useful lessons be learned about how laws and institutions actually affect decisions concerning how, and by whom, water is allocated, employed, polluted, monitored, managed or mismanaged.

1.3 Dynamic Changes in Water Management

Concepts of water use, rights, and management are changing in the South Caucasus. Gradually, as the state role recedes new rights and responsibilities are being transferred to the private sector and to individuals. Impetus for privatization, market systems, and decentralization of management appears to be relentless.

New water resource management practices are evolving in all three countries and laws are reflecting the economic and political shifts and actual needs and experiences of the private sector. As this report describes, although legal and institutional regimes need considerable strengthening, evolving water resource management reflect growing acceptance of the approach articulated by the World Bank:

Differences among countries notwithstanding, water resource management that follows the principles of comprehensive analysis, opportunity cost pricing, decentralization, stakeholder participation, and environmental protection... will yield more coherent policies and investments across sectors, promote conservation, and improve the efficiency of water allocation.³

2. RELEVANT NATIONAL LAWS

The discussion below provides a sketch of the policy, legislative, and institutional structures concerned with natural resources and water management that exist within the three countries. It focuses primarily on Georgia because of its predominant role as a link between the three countries, its importance in each of the project's pilot studies, and because of limitations of time and information for this consultancy. *Information gaps will need to be filled by the project (as outlined in the scope of work recommendations) over the next several months, and most importantly through analyses carried out under the two pilot studies*

2.1 Environmental Protection Laws and Institutions

Not surprisingly, the natural resources policy, legal and institutional regime in the South Caucasus is at an early stage of development. As yet no comprehensive policy framework exists to embrace the laws and institutions concerned with irrigation for agriculture, water supply and wastewater treatment, industrial pollution control, hydroelectric development, and environmental protection and management. Each country has established a government agency concerned with environment – in Georgia the Ministry of Environment and Nature Resource Protection, in Armenia the Ministry of Nature Protection, and in Azerbaijan the State Committee for the Environment (hereinafter, for convenience, called “Ministries of the Environment.”) In all three countries the ministries are relatively new, having been established in the 1990s. In Georgia and Armenia these ministries are addressed – one cannot say empowered -- by comprehensive laws that affect a wide span of natural resources, including water. Their actual capabilities, however, are limited. For example, in Azerbaijan the “Ministry,” which now includes fisheries, geology, and Hydromet, is presently undergoing substantial reorganization. In Georgia and Armenia the overarching environmental/nature protection laws provide a conceptual framework, but they fail to empower or guide their subject ministries in actual implementation.⁴

³ Executive Summary, *Water Resources Management*, The World Bank, 1993 which describes the Bank's framework for policies and institutional reforms.
<http://lnweb18.worldbank.org/essd/essd.nsf/WaterResourcesManagement/ExecutiveSummary>

⁴ For a useful institutional guide, see, Annotated List of Government Agencies Responsible for Water Resources Management, which covers all three countries, Annex 4, *Strengthening Water Management in the South Caucasus, Final Report*, Development Alternatives, Inc, Bethesda, Md., April 2001.
Development Alternatives, Inc.

The policy framework on environment generally is reflected in the National Environmental Action Plans developed in each country within the last several years (Armenia and Azerbaijan in 1998, Georgia in 2000.) As is typical for NEAPS around the world, they fail to integrate and set policy priorities, and they do not provide guidance to management actions, or other legal, planning, or other regulatory initiatives. But they do provide important analyses and information on conditions and trends that would otherwise be neglected, and they clearly present the challenging next step of establishing management goals and strategies for implementing reforms.

The legal framework is limited as well, because there is a general absence of any integration of legal requirements and agency responsibilities. Where more than one agency is involved or mentioned in the law, failure to establish clear lead responsibilities for license approval, regulatory action, or standard setting causes potentially costly overlaps and delayed implementation.

Georgia's Law on Environmental Protection, December 10, 1996, is an example of comprehensive legislation whose impact is, on its face, still unclear. It establishes a list of principles governing environmental protection (Article 5), duties of the Ministry of Environment and Nature Protection, for monitoring and regulating pollution as provided "by the legislation of Georgia", a tax (Article 16) for adverse environmental impacts (in accordance with Article 94 of the Constitution). It provides for an annual environmental report by the Ministry of Environment, for environmental quality standards to be "elaborated and approved" by the Ministry of Health Care Act, and for maximum permissible levels "of harmful materials in the environment and the limits to the pollution of the environment by microorganisms to be "elaborated and approved by the Ministry of Environment every five years. It discusses needs for ecological markings for consumer products, natural resource use permits, and environmental monitoring, environmental audits, and environmental impact assessment, protection of ozone layers, biological diversity, climate and protection of natural ecosystems. However, implementation of any of these provisions requires subsequent regulations, or bylaws, and there have been few issued to date.

A similar situation exists in Armenia, where the Ministry of Nature Protection was established in 1992. The Ministry is included in provisions of the legislation on Nature Protection, but regulations have not been issued to implement this law.

In Azerbaijan legislative change has been the least developed. A comprehensive environmental law was passed in 1992, but new legislation reflecting the important economic and political changes since independence has been prepared but not enacted.

Environmental Permits and Environmental Impact Assessments In all three countries provisions exist for the preparation of Environmental Permits and Environmental Impact Assessments (EIA) by project proponents and their review by a government department within the environmental ministry before any approval of required licenses. Georgia's law links EIAs to issuance of integrated environmental permits, as explained below.

Georgia's Law on Environmental Permits, October 15, 1996, establishes four categories of activities requiring permits for waste disposal, air or fume emissions, or land use, and the law itself specifies the types and sizes of mineral, energy, agricultural or other manufacturing activities included in each category. Approval of the integrated environmental permit requires state ecological examinations and public information on the proposed activity. Applicants must submit information to the Ministry of Environment (or a regional or local branch) covering the project's technical and economic "validity" and an EIA for activities in the first category – those "likely to have significant adverse and irreversible effects on the environment, on natural resources or health of humans."⁵

⁵ Chapter II, Article 4.2. Law on Environmental Permit, October 16, 1996, Republic of Georgia. Category two includes activities with "adverse" impacts, category three includes those "not likely to have significant effects on the environment," and category four includes activities not listed in the law and not likely to have significant environmental impacts.

The law specifies the information required, including the technological processes, the kind and amount of emissions and waste to be generated, recycling and mitigation measures on environmental and social impacts.

The law spells out the procedures for review with limited guidance on content of the EIA to be carried out by the investor seeking a category one permit.⁶ But it does set forth the project data required and the procedures for Ministerial review. Once received the application is open for public review at the Ministry. Within ten days of the application's receipt the Ministry must publish a notice in the press with the date and place of a public review, must review public comments within another 45 days of their receipt and hold a public review within two months of the application's receipt. Within three months it must complete its ecological examination, identify or resolve legal issues, designate appropriate mitigation measures, and decide the permit issue. Similar procedures exist, minus an EIA requirement for the applicant, for the category two and three activities, with two months granted for the Ministry's decision. One month is granted to the regional or local body to decide the issue.

Permits *shall* be issued even if environmental protection standards might be violated and even if total emissions from different enterprises at the site might increase, if "the use of the best technologies in the activity is proposed [by the investor]. But the Ministry must reexamine the emission limits and set a term for compliance with "the new limits of emission."⁷ There are special provisions and procedures required to exempt projects from EIAs because of "state interests."

EIA experience in the South Caucasus: In Georgia EIAs have been prepared primarily for the large oil and gas related developments – notably terminals and pipelines – by the proposing companies using local consultants. The Ministry of Environment takes these requirements seriously and provides opportunities for public involvement.⁸

In Azerbaijan EIAs are provided for as well, with EIA regulations developed under UNDP guidance. The National Environmental Action Plan (1998) notes that the Ecological Expertise Department of the State Ecology Committee, which screens all EIAs, reviewed 605 documents between 1994 and 1996, rejecting 42 of them.⁹ Despite legal references to the needs for environmental impact assessment, EIAs appear not to have been conducted in Armenia with respect to water resource developments.¹⁰

Limits and opportunities of the EIA The emphasis on EIAs as a primary environmental management tool reflects similar government approaches around the world since EIAs first began over thirty years ago in the United States. EIA requirements have filled a critical need for information in advance of decisions, but as the predominant, sometimes only, government assessment tool it has proven to be a limited in many ways. At the project level it fails to assess cumulative impacts of small developments, such as irrigation projects, or national policy decisions with significant environmental, social, and economic implications.¹¹ A common failing evident around the world has been the lack of monitoring by government (or NGOs or industry) of activities that have been

⁶ "The EIA studies, reveals and describes direct or indirect effects of the activity on the health and security of humans, plants and animal world, soil, air, water, climate, landscape, ecosystems and historical monuments or on the relationship among all these factors, including the potential effects [of] all those factors on cultural heritage and on social and economic factors (for infrastructure project)." *Ibid*, Chapter III, Article 14.2. There is no requirement for analyses of alternatives.

⁷ *Ibid*, Article 12, 2.

⁸ Communication with Darejan Kapandze, Operations Officer, The World Bank Office, Tbilisi, Georgia, December 12, 2001.

⁹ National Environmental Action Plan, State Committee on Ecology and Control of Natural Resources, Baku, 1998, p. 53.

¹⁰ Communication December 10, 2001 with John Herberzen, legal consultant to USAID's National Water Resources Management Program, implemented by Associates in Rural Development

¹¹ The concept of "strategic" EIAs for regional, sectoral, and policy actions has been advanced and increasingly discussed in developed and developing countries to address this problem, and after initiation in the United States the concept has been most advanced by the Dutch government. The concept can easily be adapted to integrated water management plans.

approved activities. Monitoring plans and required responses are therefore key parts of a successful EIA process, but unless operators and the public are engaged the expense to government is high.¹²

One important attribute of the EIA process, however, is its provision of opportunities for public involvement, which, in Georgia, is encouraged by the Environmental Permit Law. Although the provision of information to the public is less convenient and elaborate than in many developed and some developing countries, the process offers an otherwise rare opportunity for citizens and NGOs to participate in government decisions having environmental, economic, and social significance, such as the significant oil-related development on Georgia's Black Sea coast and the pipelines across Georgia that are being proposed.

Beyond the national level benefits, however, EIAs offer the opportunity to facilitate cooperation among nations at the technical and analytical level, and this is particularly appropriate and valuable with respect to proposed projects affecting international waterways like the Kura-Aras. The international convention on EIAs recognizes that need and opportunity, and at this date, it has only been ratified by Azerbaijan.¹³

2. 2 Irrigation Laws

Along with the predominant privatization of arable agricultural land and collective farms in all three countries¹⁴ has been the development of water user groups to provide irrigation water to farmers. The World Bank has been active in developing Amelioration Associations in Georgia and Azerbaijan, and water user groups in Armenia, which are designed to be non governmental cooperatives buying water from state entities and selling it to private farmers. These associations may be important stakeholders to be engaged in all three countries by SCWA in its two pilot projects.

Georgia's Law on Amelioration, promulgated in 1997, codified guidelines for the design, construction, rehabilitation and operation and maintenance (O&M) of hydraulic structures, pasture watering, irrigation, forestation, and soil improvement schemes, and it provided for Amelioration Associations (AAs) to serve the needs of water and drainage users. The law has been since amended, with new ones proposed and under consideration, to provide for the establishment, organization, and rights and obligations of the AAs as legal bodies under Georgian law.¹⁵

In Azerbaijan some 451 Amelioration Associations have been established as successors to the collective farms, of which 6 will be financed for development under a World Bank program. Rules have been established for these AAs to collect money from farmers and buy water.¹⁶

Armenia, which is still operating under its 1992 Water Code, has established Water User Associations that now cover a small portion (15 percent) of irrigated land. Projects have been underway with World

¹² Beyond the reach of EIAs, of course, are the operational procedures followed by manufacturing, energy, or agricultural enterprises that affect the use of land or water resources that are the target of environmental management systems like ISO 14001. Requirements for EMS might be included in an environmental permit.

¹³ The Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, Finland, 1991) stipulates the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. The EIA Convention entered into force on 10 September 1997.

¹⁴ The extent and nature of privatization varies, and goes beyond the scope of this constancy. We were told by that all irrigated land had been privatized (communication with Mr. Nadim Kazibekov, First Deputy Chairman, Committee of Amelioration and Water Farms of Azerbaijan, Baku, Dec. 4, 2001). In Armenia, pastureland has not yet been privatized. In Georgia privatization of various kinds has focused on arable land.

¹⁵ De Jong, Dr. Remy L., *Draft Final Report on Legal-Institutional Consultancy* [to the Irrigation and Drainage Community Development Project of the World Bank, with the Ministry of Agriculture and Food of Georgia], October, 2001. The project, in the first 5 year phase of a 12 year span, will address irrigation and drainage system rehabilitation and maintenance in three irrigation areas (20,060 ha.) and the development and strengthening of Amelioration Associations.

¹⁶ Communication with Mr. Nadim Kazibekov, Baku, December 4. Development Alternatives, Inc.

Bank financing to expand their coverage.¹⁷ Armenia will soon begin another World Bank project on irrigation development, the first stage of which will involve formulation of regulations and procedures for participatory approaches to irrigation system management. There are several key issues of concern, including: high costs of water delivery due to energy intensive pumping; lack of effective cost recovery policies and O&M funding and implementation, and lack of clarity regarding responsibilities for irrigation management resulting in high water losses.

At present Armenia lacks a legal framework for a decentralized, participatory irrigation system management. In designing the irrigation project, the World Bank has noted that in Armenia:

[a] primary weakness, at present, is the absence of a legal framework to support the introduction of a decentralized and fully participatory irrigation system management and to provide incentives to reduce water losses. Armenia has neither a water law nor an alternative constitutional mechanism that could provide the legal underpinning for the establishment of independent and self-managed Water User Associations...¹⁸

Importance of water user group developments in all three countries Recognizing this critical legal gap, which is significant in all three countries, the development of most immediate significance to the USAID Water Management in the South Caucasus project and its pilot projects is the focus on non-governmental cooperatives water user groups. These are intended to become significant local stakeholders in effective irrigation management and in water resource management generally. That result will depend on progress in developing the legal framework that defines their responsibilities, establishes their legal autonomy, rights and obligations to members, and establishes incentives for cost-effective O&M. In all three countries, however, government responsibilities appear likely to remain strong in the O&M of dams, primary water intake and transport systems, and large pumping stations. Legal and regulatory reforms will be necessary to define the roles of government ministries and agencies and reduce their now often overlapping and confusing responsibilities.

2.3 Water Supply and Wastewater Management Laws

Georgia and Armenia have established new water laws that are relatively comprehensive on their face, although implementation is problematic. Azerbaijan, however, has not embarked on substantial legal reform of its water laws.

Georgia's Water Law of 1997, which repealed the previous Soviet era water law, established a comprehensive state policy for protecting water resources, providing for rational use of water, water supply and environmental management. Although the Ministry of Environment appears to have the primary responsibilities, other agencies, including the Ministry of Health Protection, are listed so that legal responsibilities among the agencies are often unclear. Key provisions include the following:

- a. Protected areas along rivers were established under Soviet times to reduce erosion, pollution, and provide flood protection. Protected areas under the Water Law have different widths depending on a river's length. The Kura River requires a protected area of 50 meters on each side, whether in urban or agricultural areas. Disposal of waste, use of chemical pesticides, is prohibited in these areas. Any construction of new or on existing buildings requires a permit, requires a permit from the Ministry of Environment. The Ministry is to coordinate regulations with other ministries. It is not clear how this provision has been implemented.
- b. Three levels of sanitary protection zones are established for water bodies used for drinking, domestic water supply, medical treatment or recreation. These must be established by

¹⁷ World Bank Project Identification Document Report No. PID7250, December 16, 1998.

¹⁸ World Bank, Project Appraisal Document on a Proposed Credit in the Amount of SDR 19.8 million (US \$24.9 million equivalent) to the Republic of Armenia for an Irrigation Development Project, August 7, 2001. Report No. 22599-AM, p. 6.
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regulations of Ministry of Health. It remains to be determined whether there been any such regulations or, if so, how they have been implemented.

- c. Requirements for water use. For general use (domestic use, recreational purposes, aesthetic purposes) there is no license and use is free of charge if it does not affect water quality. But a license is required for special uses, which include any use (including domestic use, recreational use) that “would affect water quality,” and industrial, agricultural, or other such uses.
- d. The law provides procedures Ministry of Environment to issue licenses for the taking of water and for wastewater discharge. Provisions include a fee for a license, and for auctions of licenses to be auctioned in cases where two or more applicants want water from the same body of water or the same part of the water body. Short-term licenses are for 5 years and long-term for 25 years. Discharge permits last five years.
- e. Establishment of water quality standards: Licenses can be issued only if the discharge does not exceed ambient water quality standards. It is unclear whether new water quality standards been formulated after passage of this law, or whether they remain the same as the previous, unenforceable, Soviet standards.

The Water Law requires by-laws (regulations) covering some 35 different provisions. Most, but not all, are by the Ministry of Environment in coordination with other ministries. Significant by-laws requiring agreement among several ministries or agencies must be approved by Presidential decrees. The Ministry of Environment can approve those few that concern items related only to its functions.

The regulations on surface waters¹⁹ require water quality standards to be developed by “the relevant research institutes” and approved by the Ministry of Environment for fish production water bodies and the Ministry of Health for water bodies used to supply potable water and consumption. The environment ministry must establish “Procedures for establishing and approving standards for a Permissible Limit of Discharge...” and monitoring programs for the entire country. Actual standards for point discharges are based on concentrations as well as on the condition of receiving waters, but the complex formulas for calculating permissible discharge limits²⁰ make implementation of the regulations, and their predictability by users, very demanding. The provisions for charging fees for licenses are now being examined by a European Union/TACIS project to determine reform needs.²¹

Practical effects of these and other provisions of the water law and surface water regulations – for example, how users understand and respond to them, how the government agencies cooperate in their implementation responsibilities – can best be understood at the field level. These kinds of questions can be addressed in the course of the project’s two integrated river basin planning projects as project consultants assess water uses and the role and actions of stakeholders. (See Section 3, below.)

Armenia’s Water Code: Armenia’s water code established in 1992 is now outdated by the vast social, political and economic changes. A new code is being drafted for presentation to the Armenian Parliament in the spring of 2002.²² The scope is broad, to include water rights, water quality, drinking water supply, water standards, irrigation financing structures, and agency responsibilities. Given the complexity of the issues and the ways in which laws have traditionally been conceived and drafted in all three countries the changes likely in legal and implementation approaches remain unclear.

¹⁹ *Regulations on Protection of Georgian Surface Waters from Pollution*, Order No. 130, Minister of Environment and Natural Resources Protection of Georgia, September 17, 1996

²⁰ *Methodology for Calculation of Permissible Discharge Limits (PDL) of Pollutants Discharged with Effluents into Water Reservoirs*, Order No. 105, December 8, 1996.

²¹ Communication with Andrew Huckbody, EU Advisor for Armenia, Azerbaijan, Georgia and Turkmenistan, December 14, 2001.

²² A multi-agency working group under the State Water Committee is revising the existing code with support from the USAID National Water Resources Management Program in Yerevan.
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Azerbaijan: Despite promising developments the legal framework for water has not been reformed to date. USAID's Congressional Budget Justification for FY 2002 notes:

Azerbaijan's transition to an open market economy has been hampered by inadequate economic policy reform and economic restructuring, insufficient privatization and private sector development, rampant corruption, and the absence of an enabling legal and regulatory environment.²³

Nevertheless, as noted above, privatization of property and concepts of market systems are underway, and legal reform can be expected in time.

3. INTERNATIONAL CONVENTIONS AND AGREEMENTS

3.1 International Conventions

The three countries have signed or ratified a number of International conventions concerned with water and environment generally, as indicated in the Appendix. Of general interest, all three have signed the Aarhus treaty concerned with public participation. Significantly, none of the Kura-Aras riparian countries has signed the UN/ECE Convention on the Protection and Use of Transboundary Watercourses, which is the important Framework Convention for the Danube River Protection Convention (discussed below). All have signed the Ramsar wetlands treaty. Georgia and Armenia, but not Azerbaijan, have signed the Convention on the Law on Non-Navigational Uses of International Watercourses. As noted above, Azerbaijan alone has ratified the Convention on Environmental Assessment in a Trans-boundary context. So far as can be determined no implementing bylaws or regulations have been established in any of the countries for implementing these conventions.

Framework Convention for Protection of the Caspian Sea: Azerbaijan is one of the five states (with Russia, Kazakhstan, Turkmenistan, and Iran) participating in the Caspian Environment Program (EU/TACIS, UNDP, UNEP), for which a Framework Convention for the Protection of the Caspian Sea is under negotiation (and close to being agreed upon). The principles of the Convention, which are relevant to principles that might in future underlie any international agreements concerning the Kura-Aras Watershed, are:

- “(a) The precautionary principle, by virtue of which, where there is a threat of serious or irreversible damage to the Caspian Sea environment, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent such damage;
- (b) The “polluter pays” principle, by virtue of which the polluter bears the costs of pollution including its prevention, control and reduction;
- (c) The principle of accessibility of information on the pollution of the [marine] [environment] of the Caspian Sea according to which the Contracting Parties provide each other with relevant information in the maximum possible amount.”

Also relevant to any agreement that might be entered into regarding the Aras River by Azerbaijan and Iran is the provision concerning discharges from a watercourse:

If the discharge from a watercourse, flowing through the territories of two or more Contracting Parties or forming a boundary between them, is likely to cause pollution of the Caspian Sea, the Contracting Parties shall co-operate in taking all appropriate measures to prevent, reduce and control such pollution, including, where appropriate, the establishment of joint bodies responsible for identifying and resolving potential pollution problems.

²³ See <http://www.usaid.gov/country/ee/az>

The draft Framework calls for implementation of Environmental Impact Assessment procedures “any planned activity ...likely to cause significant adverse effect on the [marine] [environment] of the Caspian Sea..” And it calls on parties to work toward:

- Development of programmes for monitoring quality and quantity of water;
- Emission and discharge limits for waste and to evaluate the effectiveness of control programmes;
- Water quality objectives and criteria and to propose relevant measures for maintaining and, where necessary, improving existing water quality;
- Harmonised action programmes for the reduction of pollution loads from municipal and industrial point and diffuse sources, including agriculture, urban and other runoff.²⁴

A meeting of CEP experts discussed a range of economic instruments and related policies designed to improve the management of the Caspian Sea.

Georgia and Armenia are the only two non riparian states that lie upstream of major rivers flowing into the Caspian; all other rivers lie within the jurisdiction of the Contracting Parties. Although both countries have sought observer status in the program they have not been accepted.

Protocols are being developed for hazardous materials, fisheries, data sharing, biodiversity, oil spills, and EIA, among others. The Protocol on Data Sharing has advanced the farthest, but a number of problems have been confronted: Data have not been collected on key parameters, where collected they are inadequate, and some are simply untrustworthy. Some ministries in the Caspian Program do not want to share, or even to sell, data.²⁵

3.2 Bilateral Treaties and Agreements

The principle of water sharing was established in the region when the USSR reached agreements with Turkey in 1927²⁶ and later with Iran (1957)²⁷. Both treaties concerned water resource development along the Aras River. Successor states to the USSR are parties to these treaties, most notably Armenia.

Pursuant to the Turkey-USSR (Armenia) treaty the two countries agreed in 1983 to draw water from the Araks (Aras) River, and in 1999 Armenia notified Turkey of a proposed intake project, widening an intake canal from 250 million to 350 million cubic meters of water annually. The two countries conduct joint, periodic review of the intake operations on both sides of the Aras under their inter-governmental agreement.²⁸

There are a number of examples of bilateral agreements between Georgia and its two neighbors that can be built upon or used as guides and precedents for any future integrated water management agreements across borders.

a. Georgia-Azerbaijan

²⁴ See Evaluation of Legal and Economic Instruments to be Used for the Caspian Sea Environmental Protection, Third CRTC LREI Expert Meeting, Moscow, 22-23 August 2001, Recommendations To Improve Effectiveness of Economic Instruments for Solving Environmental Problems of the Caspian Sea.

²⁵ Communication with Tim Turner, Project Cooredinator, Caspian Environment Program, and Hamid Ghaffarzadeh, Environmental Economist, Baku, Azerbaijan, December 5, 2001.

²⁶ The Convention on Water Use from Transboundary Rivers, Small Rivers and Brooks of the Union of Soviet Socialist Republics and the Republic of Turkey.

²⁷ In 1957 the USSR concluded a treaty with Iran for joint use of the frontier parts of the Rivers Araks and Atrak for irrigation, power generation and domestic use, providing for fifty per cent from the Transboundary Rivers Araks and Atrak for each of the parties. It also provides for cooperation on joint exploration and data collection.

²⁸ The World Bank, Project Identification Document Rep. No. 22599-AM p. 21)
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Various agreements have developed between these two countries from 1993 to the present that cover many topics. Those related to environmental and natural resource management include the following.

Sharing of Legal Information (effective July 2000). This agreement by the ministries of justice concerns legal actions open to the public and existing data bases (unspecified) in Russian and free of charge. The appendix lists the legal acts subject to disclosure, including those concerned with industry, agriculture, finance and credit, transportation, health, education, science and culture, environmental protection, land legislation, mineral and water resources, wildlife and other natural resources, and hydrometeorology. (The agreement does not include sharing of information on current administrative or enforcement actions related to the legal acts.)

Cartography and Remote Sensing, Land Cadastres (July 1997). The agreement calls for development of methodology for establishing GIS systems, although it does not call for a common method. It includes collaboration respecting training programs for these topics. The agreement calls for implementation of the agreement by “the relevant authorities,” but does not specify what ministries are to be involved or how coordination is to be carried out. (A question to answer is how and by whom the agreement is implemented, and where. The agreement may relate to areas wherein there is some border dispute between the two countries.)

Environmental Protection (May 1997). The agreement says the parties will work toward the use of common criteria, methods and procedures for the assessment of environmental quality generally. The parties will collaborate on topics such as biological diversity, climate change, and ozone depletion and in the application of clean technologies. They will conduct common research on these topics and short and long-term environmental programs. Cooperation also includes protection of migration corridors for birds and mammals and collaboration in protection of ecosystems (which are undefined) along the borders that are “severely affected by humans.” The parties will coordinate actions according to their own national requirements and international obligations with respect to the trans boundary movement of mineral resources, wood, animals (or their parts) and plants used for medical treatment, and also for trans boundary movement of hazardous waste and byproducts.²⁹ When an environmental disaster, including an Act of God, occurs in either country the parties should share information and take actions to avoid trans-boundary impacts. A separate article concerns the need for a focus of common efforts to protect the Kura River and the Lake of Dzhandargel (transected by the border) from contamination and over use. Both countries recognize the importance of the river and lake to their national economies and populations. The Ministry of Environment and the State Committee on Ecology and Natural Resources are responsible for implementation.

b. Georgia-Armenia

These two countries also have agreements concerning geodesy, cartography and remote sensing virtually identical to those between Georgia and Azerbaijan, with another largely similar agreement concerning environmental and natural resources protection.

The environmental agreement provides for the two countries’ Ministries of Environment/Nature Protection to cooperate on resource protection, environmental quality monitoring, and to use common approaches and standards, methods, criteria, norms, and procedures. Like the Georgian agreement with Azerbaijan, the parties will collaborate on topics such as biological diversity, climate change, and ozone depletion, application of clean technologies, will conduct common research on these topics and environmental programs. Cooperation also includes protection of migration corridors for birds and mammals, and protection of ecosystems (which are undefined) along the borders that are “severely affected by humans.” The parties will coordinate actions according to their own national requirements and international obligations with respect to the trans

²⁹ Note: Georgia is, but Azerbaijan is not, a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
Development Alternatives, Inc.

boundary movement of mineral resources, wood, animals (or their parts) and plants used for medical treatment, and also for trans boundary movement of hazardous waste and byproducts. When an environmental disaster, including an Act of God, occurs in either country the parties should share information and take actions to avoid trans-boundary impacts. *The only important difference in provisions between Georgia and Azerbaijan is that the Georgian-Armenian ministries will establish protected zones in which they will only permit certain activities, which remain to be defined.*

4. NATURAL RESOURCE MANAGEMENT

4.1 Agency Cooperation

The three environmental ministries in each country are, like those of most developing and transition economies, politically and financially weak, sometimes lacking in clear legal authority for management and enforcement, and limited in technical capabilities and resources. Basic laws are in place, but the legal regime for regulation and implementation of national laws and international conventions is not fully developed. Yet these ministries are young, their tasks are immense, and like their counterparts in so many other countries around the world, their good works are often unnoticed and unrewarded. They fill a critical institutional niche in environmental and water resource management (including pollution discharge, water use, and wastewater treatment).

But other ministries, such as ministries of agriculture, industry, energy, and health, play a critical environmental role in water resource management. Legal and institutional structures for coordinating policies appear to be limited. However, their ability and their incentives to work together toward an efficient and sustainable integrated water management approach are essential, given the connection between economic growth and sound management of water resources. Experiences outside the region illustrate ways in which this kind of cooperation can be strengthened.

4.2 Summary of Existing Laws

An attempt was made to summarize the laws affecting the environment and water management in the region. The information is presented in this “working document” to provide a focal point of discussions with the various stakeholders in Armenia, Azerbaijan, and Georgia to increase the dialogue for sustainable water management in the South Caucasus. This report will be updated following a detailed review and as more accurate information becomes available.

The national Laws on the Environment and Water Management in each country have been summarized in Tables C-1, C-2, C-3 for Armenia, Azerbaijan, and Georgia, respectively, in the Appendix. In addition, the International Environmental Agreements in each country have also been summarized in Tables B-1, B-2, B-3 for Armenia, Azerbaijan, and Georgia, respectively, in the Appendix.

Finally, a Comparison of the International Agreements in the South Caucasus was prepared that shows the various agreements and conventions executed by Armenia, Azerbaijan, and Georgia. This summary is presented in Table A-1 in the Appendix.

APPENDIX: EXISTING LAWS AND AGREEMENTS

A: Comparison of International Agreements

A-1 Comparison of International Agreements in the South Caucasus

B: International Environmental Agreements by Country

B-1 International Environmental Agreements in Armenia

B-2 International Environmental Agreements in Azerbaijan

B-3 International Environmental Agreements in Georgia

C: Laws on Environmental and Water Management by Country

C-1 Laws on the Environment and Water Management in Armenia

C-2 Laws on the Environment and Water Management in Azerbaijan

C-3 Laws on the Environment and Water Management in Georgia

**Table A-1
COMPARISON OF INTERNATIONAL AGREEMENTS IN THE SOUTH CAUCASUS**

No.	Name	Armenia	Azerbaijan	Georgia
1	Convention on Wetlands of International Importance Especially Waterfowl Habitat (Ramsar, 1971)	X	X	X
2	International Convention for the Prevention of Pollution from Ships (London, 1973)		X	X
3	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington, D.C., 1973)		X	X
4	Convention on Long-range Trans-boundary Air Pollution (Geneva, 1979) - Protocol on Heavy Metals - Protocol on Persistent Organic Pollutants - Protocol on Abatement of Acidification, Eutrophication and ground-level Ozone Formation	X	X	X
5	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)		X	X
6	Convention for the Protection of the Ozone Layer (Vienna, 1985)	X	X	X
7	Protocol on Substances that Deplete the Ozone Layer (Montreal, 1987)	X	X	X
8	Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (Basel, 1989)	X	X	X
9	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (London, 1990)		X	X
10	Convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo, 1991)	X	X	
11	Convention on Biological Diversity (Rio de Janeiro, 1992)	X	X	X
12	UN Framework Convention on Climate Change (New York, 1992)	X	X	X
13	Convention on the Protection of the Black Sea Against Pollution, (Bucharest, 1992)		X	X

14	Convention for the Protection of the World Cultural and Natural Heritage (Paris, 1972)	X	X	X
15	Convention for Civil Liability for Oil Pollution Damage (London, 1992)			X
16	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (Copenhagen, 1992)		X	
17	Convention on the Trans-boundary Effects of Industrial Accidents (Helsinki, 1992)	X		
18	Convention on Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly Africa (Paris, 1994)	X	X	X
19	Agreement on the Conservation of African-Asian Migratory Water birds (The Hague, 1995)			X
20	Agreement on the Conservation of Cetaceans of the Mediterranean and Black Sea (Bonn, 1996)			X
21	Kyoto Protocol to Amend the UN Framework Convention on Climate Change (Kyoto, 1997)		X	X
22	Montreal Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal, 1997)		X	X
23	Convention on Access to Public Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, 1998)	X	X	X
24	Convention on Protection and Use of Trans-boundary Watercourses and International Lakes, Protocol on Water and Health	X	X	
25	Convention on Plant Protection (Roma, 1951)		X	
26	European Convention on Wildlife and Environment protection (Bern 1979)		X	
27	Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemical and Pesticides in International Trade (Rotterdam)	X		
28	Convention on Persistent Organic Pollutants (Stockholm)	X		
29	Memorandum of Understanding among the Ministry of Environment of Georgia and the State Committee for Ecology and Natural Resources of Azerbaijan Republic on Collaboration in the Development and Implementation of the Pilot Project On Monitoring and Assessment in the Mtkvari/Kura River Basin (1997)		X	X

30	Agreement between the Governments of Georgia and Azerbaijan Republic on Geodesy, Cartography, Land Cadastres and Remote Sensing (1997)		X	X
31	Agreement between the Governments of Georgia and Azerbaijan Republic on Collaboration in the Environmental Protection (1997)		X	X
32	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Remote Sensing (1993)	X		X
33	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Geoinformation (1998)	X		X
34	Agreement between the Governments of Georgia and Armenian Republic on Collaboration in the Environmental Protection (1997)	X		X
35	Agreement between the Tbilisi City Hall and the Executive Authorities of Baku (1997)		X	X
36	The Protocol on Results of Negotiation between the Governmental Delegations of Georgia and Republic of Azerbaijan on Water Resources Usage.(1997)		X	X
37	Agreement between the Governments of Georgia and of Armenia on the Principles of the Water System Usage (1997)	X		X

**Table B-1
INTERNATIONAL ENVIRONMENTAL AGREEMENTS IN ARMENIA**

No.	Name	Date	In Force in Armenia
1	Convention on Wetlands of International Importance Especially Waterfowl Habitat (Ramsar)	1971	1993
2	Convention on Long-range Trans-boundary Air Pollution (Geneva) - Protocol on Heavy Metals - Protocol on persistent organic pollutants - Protocol on Abate Acidification, Eutrophication and ground-level Ozone Formation	1979	1997
3	Convention for the Protection of the Ozone Layer (Vienna)	1985	1999
4	Protocol on Substances that Deplete the Ozone Layer (Montreal)	1987	1999
5	Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (Basel)	1989	1999
6	Convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo)	1991	1997
7	Convention on Biological Diversity (Rio de Janeiro)	1992	1993
8	UN Framework Convention on Climate Change (New York)	1992	1993
9	Convention for the Protection of the World Cultural and Natural Heritage (Paris)	1972	1993
10	Convention on the Trans-boundary Effects of Industrial Accidents (Helsinki)	1992	1997
11	Convention on Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly in Africa (Paris)	1994	1997
12	Convention on Access to Public Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus)	1998	2001
13	Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemical and Pesticides in International Trade (Rotterdam)	1998	1998

14	Convention on Protection and Use of Trans-boundary Watercourses and International Lakes - Protocol on Water and Health	1999	1999
15	Convention on Persistent Organic Pollutants (Stockholm)	2001	2001
16	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Remote Sensing	19.05.1993	19.05.1993
17	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Geoinformation	26.09.1998	10.10.1998
18	Agreement between the Governments of Georgia and Armenian Republic on Collaboration in the Environmental Protection	19.05.1997	30.11.1998
19	Agreement between the Governments of Georgia and Armenian Republic on the Principles of the Water System Usage	18.02.1997	18.02.1997

**Table B-2
INTERNATIONAL ENVIRONMENTAL AGREEMENTS IN AZERBAIJAN**

No.	Name	Date	In Force in Azerbaijan
1	Convention on Wetlands of International Importance Especially Waterfowl Habitat (Ramsar)	1971	18.07.2000
2	International Convention for the Prevention of Pollution from Ships (London)	1971	22.04.1997
3	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington, D.C.)	1973	23.06.1998
4	Convention on the Conservation of Migratory Species of Wild Animals (Bonn)	1979	18.07.2000
5	Convention for the Protection of the Ozone Layer (Vienna)	1985	31.05.1996
6	Protocol on Substances that Deplete the Ozone Layer (Montreal)	1987	31.05.1996
7	Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (Basel)	1989	16.02.2001
8	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (London)	1990	31.05.1996
9	Convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo)	1991	01.02.1999
10	Convention on Biological Diversity (Rio de Janeiro)	1992	14.03.2000
11	UN Framework Convention on Climate Change (New York)	1992	10.01.1995
12	Convention on the Protection of the Black Sea Against Pollution, (Bucharest)	1992	
13	Convention for the Protection of the World Cultural and Natural Heritage (Paris)	1972	06.12.1993
14	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (Copenhagen)	1992	31.05.1996
15	Convention on the Trans-boundary Effects of Industrial Accidents (Helsinki)	1992	

16	Convention on Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly Africa (Paris)	1994	24.04.1998
17	Protocol to Amend the UN Framework Convention on Climate Change (Kyoto)	1997	18.07.2000
18	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal)	1997	18.07.2000
19	Convention on Access to Public Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus)	1998	09.11.1999
20	Convention on Protection and Use of Trans-boundary Watercourses and International Lakes - Protocol on Water and Health		14.03.2000
21	Convention on plant protection (Roma)	1951	14.03.2000
22	European Convention on Wildlife and Environment protection (Bern)	1979	14.03.2000
23	Convention on the Protection of the Black Sea Against Pollution, (Bucharest)	1992	
24	Memorandum of Understanding among the Ministry of Environment of Georgia and the State Committee for Ecology and Natural Resources of Azerbaijan Republic on Collaboration in the Development and Implementation of the Pilot Project On Monitoring and Assessment in the Mtkvari/Kura River Basin	16.09.1997	16.09.1997
25	Agreement between the Governments of Georgia and Azerbaijan Republic on Geodesy, Cartography, Land Cadastres and Remote Sensing	18.02.1997	10.07.1997
26	Agreement between the Governments of Georgia and Azerbaijan Republic on Collaboration in the Environmental Protection	18.02.1997	8.05.1997
27	Agreement between the Tbilisi City Hall and the Executive Authorities of Baku	18.02.1997	25.04.1997
28	The Protocol on Results of Negotiation between the Governmental Delegations of Georgia and Republic of Azerbaijan on Water Resources Usage	27.12.1997	27.12.1997

Table B-3
INTERNATIONAL ENVIRONMENTAL AGREEMENTS IN GEORGIA

No.	Name	Date	In Force in Georgia
1	Convention on Wetlands of International Importance Especially Waterfowl Habitat (Ramsar)	1971	30.04.1996
2	International Convention for the Prevention of Pollution from Ships (London)	1973	19.07.1994
3	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington, D.C.)	1973	12.12.1996
4	Convention on Long-range Trans-boundary Air Pollution (Geneva) - Protocol on Heavy Metals - Protocol on persistent organic pollutants - Protocol on Abate Acidification, Eutrophication and ground-level Ozone Formation	1979	13.10.1999
5	Convention on the Conservation of Migratory Species of Wild Animals (Bonn)	1979	11.02.2000
6	Convention for the Protection of the Ozone Layer (Vienna)	1985	19.06.1996
7	Protocol on Substances that Deplete the Ozone Layer (Montreal)	1987	14.06.2000
8	Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (Basel)	1989	12.05.1999
9	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (London)	1990	16.09.1997
10	Convention on Biological Diversity (Rio de Janeiro)	1992	21.04.1994
11	UN Framework Convention on Climate Change (New York)	1992	27.10.1994
12	Convention on the Protection of the Black Sea Against Pollution (Bucharest)	1992	15.01.1994
13	Convention for Civil Liability for Oil Pollution Damage (London)	1992	23.10.1995
14	Convention on Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly Africa (Paris)	1994	23.06.1999

15	Agreement on the Conservation of African-Asian Migratory Water birds (The Hague)	1995	2.03.2001
16	Agreement on the Conservation of Cetaceans of the Mediterranean and Black Sea (Bonn)	1996	2.03.2001
17	Protocol to Amend the UN Framework Convention on Climate Change (Kyoto)	1997	16.09.1999
18	Convention on Access to Public Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus)	1998	11.02.2000
19	Convention for the Protection of the World Cultural and Natural Heritage (Paris)	1972	4.02.1993
20	Memorandum of Understanding among the Ministry of Environment of Georgia and the State Committee for Ecology and Natural Resources of Azerbaijan Republic on Collaboration in the Development and Implementation of the Pilot Project On Monitoring and Assessment in the Mtkvari/Kura River Basin	16.09.1997	16.09.1997
21	Agreement between the Governments of Georgia and Azerbaijan Republic on Geodesy, Cartography, Land Cadastres and Remote Sensing	18.02.1997	10.07.1997
22	Agreement between the Governments of Georgia and Azerbaijan Republic on Collaboration in the Environmental Protection	18.02.1997	8.05.1997
23	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Remote Sensing	19.05.1993	19.05.1993
24	Agreement between the Governments of Georgia and Armenia on Geodesy, Cartography and Geoinformation	26.09.1998	10.10.1998
25	Agreement between the Governments of Georgia and Armenian Republic on Collaboration in the Environmental Protection	19.05.1997	30.11.1998
26	Agreement between the Tbilisi City Hall and the Executive Authorities of Baku	18.02.1997	25.04.1997
27	The Protocol on Results of Negotiation between the Governmental Delegations of Georgia and Republic of Azerbaijan on Water Resources Usage	27.12.1997	27.12.1997
28	Agreement between the Governments of Georgia and Armenian Republic on the Principles of the Water System Usage	18.02.1997	18.02.1997

Table C-1
LAWS ON THE ENVIRONMENT AND WATER MANAGEMENT ARMENIA

№	Name	In Force	Last Amendment
I. ENVIRONMENTAL LAW			
I. a) Natural Protection Laws			
1	Fundamentals of ROA Legislation on Nature Protection	July 9, 1991	April 2, 1996
2	On Specially Protected Natural Areas	December 17, 1991	No Amendment
3	On Environmental Impact Expertise	November 20, 1995	May 13, 1997
I. b) Natural Resources Laws			
1	ROA Land Code	January 29, 1991	No Amendment
2	ROA Water Code	March 23, 1992	March, 2002
3	ROA Code on Underground Resources	March 19, 1992	No Amendment
4	ROA Forestry Code	November 1, 1994	No Amendment
5	On Atmospheric Air Protection	November 1, 1994	No Amendment
6	On Nature Use and Nature Protection Payments	January 1, 1999	No Amendment
7	On Flora	November 23, 1999	No Amendment
8	On Fauna	March 2000	No Amendment
I. c) Laws Containing Nature Protection Norms			
1	On Peasants and Peasant Collective Farms	January 22, 1991	No Amendment
2	On Principles of Privatization	February 13, 1991	No Amendment
3	On Securing Sanitary Epidemiological Security of the Population	November 16, 1992	No Amendment

4	On Land Tax		April 27, 1994	No Amendment
5	On State Border		July 4, 1994	No Amendment
6	On Foreign Investments		July 31, 1994	No Amendment
7	On Advertisement		April 30, 1996	No Amendment
8	On Highways		May 13, 1996	No Amendment
9	On Activities of State Agricultural Inspections		May 15, 1996	No Amendment
10	On Local Self-Government		June 30, 1996	No Amendment
11	On State and Agency Secrets		December 3, 1996	No Amendment
12	On Securing Standardization of Measurement in ROA		April 30, 1997	No Amendment
13	On Energy		June 9, 1997	No Amendment
14	On Budget Structure		June 24, 1997	No Amendment
15	On Profit Tax		September 30, 1997	No Amendment
16	On Transport		February 3, 1998	No Amendment
17	On City Planning		May 5, 1998	No Amendment
18	On Medicines		October 27, 1998	No Amendment
19	On Protection and Use of Non-Mobile Historic and Cultural Monuments and Historic Environment		November 11, 1998	No Amendment
20	On Protection and Use of the Population in Emergency Cases		December 2, 1998	No Amendment
21	On Safe Use of Nuclear Power for Peaceful Purposes		February 1, 1998	No Amendment
22	On Education		April 14, 1999	No Amendment

23	On Liability for Violations in City Planning	April 28, 1999	No Amendment
24	On Standardization	November 9, 1999	No Amendment
25	On Securing Conformity of Normative Requirements for Industry and Services	November 9, 1999	No Amendment
I. d) Regulations Having Force of Law			
1	ROA Government Act On Rates of Payments for Nature Protection	December 31, 1998	July 30, 1999
I. e) Enforcement Norms			
1	ROA Code on Administrative Violations	December 6, 1985	June 23, 1997
2	ROA Civil Code	May 5, 1998	No Amendment
3	ROA Civil Procedure Code	June 17, 1998	No Amendment
4	ROA Criminal Code	March 7, 1961	June 9, 1997
5	ROA Labor Code	June 10, 1972	No Amendment
II. REGULATIONS			
II. a) Miscellaneous			
1	ROA Presidential Decree on State Government in Regions	May 6, 1997	No Amendment
2	ROA Presidential Decree on State Government in Yerevan City	June 6, 1997	No Amendment
3	ROA Government Act on Threshold Level of Planned Activity Subject to Environmental Impact Expertise	March 30, 1999	No Amendment
4	ROA Government Act on Rates of Fees for Nature Use	December 30, 1998	No Amendment
5	ROA Government Act on Determination of the Actual Extent of the Object for Nature Use and Nature Protection Fees	May 25, 1999	No Amendment
6	Procedures for Control over Registration and Payment of Nature Use and Nature Protection Fees (ROA Government)	July 10, 1999	No Amendment

7	Procedures for Nature Use and Nature Protection Fee Payers (ROA Government)	July 10, 1999	No Amendment
8	ROA Government Act On Procedures for Notification about Planned Changes in Vital Human Functions and Public Participation in Discussion and Decision-Making On Published Plans and Programs	October 28, 1998	No Amendment
9	Procedures for Payment of Value Added Tax, Excise Tax, Customs (or other Fixed Fees stated instead) and Nature Protection Fees (ROA Government)	April 19, 1999	No Amendment
10	Information Classified as State Secrets of the Republic of Armenia (ROA Government)	March 13, 1998	No Amendment
11	ROA Government Act On Regulation of Import, Export and Transit Transfer of Hazardous and other Wastes	December 8, 1995	No Amendment
12	Procedures for Issuing Permits for Construction and Demolition in the Republic of Armenia (ROA Government)	November 29, 1997	No Amendment
13	ROA Government Act on Determination of Agrarian Rules	March 11, 1998	No Amendment
14	Armenian SSR Ministers' Council Act On Creation of Hydrological Reserves	March 23, 1981	No Amendment
15	Procedures for Conducting Hunting Farms and Hunting on the Territory of the Republic of Armenia (Armenian SSR Ministers' Council)	January 21, 1981	No Amendment
16	Charter and Structure of the Republic of Armenia Department of Emergency Cases (ROA Prime-Minister)	January 24, 1996	No Amendment
17	Procedures for Control Over Payments for Natural Resources Utilization and Environmental Pollution fees (ROA Tax Inspection)	December 9, 1993	No Amendment
18	Procedures for Control Over the Actual Extent of Objects of Nature Use and Nature Protection Fees (ROA Government)	July 10, 1999	No Amendment
II. b) State Reserve Boghakar			
1	Charter of State Reserve Boghakar (ROA Ministers' Council)	October 27, 1989	No Amendment
II. c) Sevan National Park			
1	ROA Ministers' Council Act On Creation of Sevan National Park	March 14, 1978	No Amendment

2	Procedures for Industrial Fishing in Lake Sevan (ROA Government)	January 26, 1996	March 10, 1998
II. d) Legal Protection of Water			
1	Chapter of Water Protection Zones of the Armenian SSR (Arm. SSR Ministers' Council)	December 22, 1989	No Amendment
2	Procedures for Issuing Exploitation Permits, State Registration, Protection and Special Water Utilization for Underground Water Mines and Water Carrying levels (ROA Government)	March 31, 1998	No Amendment
II. e) Legal Protection of the Atmosphere			
1	State Registration of Hazardous Impacts on the Atmosphere (ROA Government)	April 22, 1999	No Amendment
II. f) Legal Protection of Forests			
1	Rules of Fire Safety in the ROA Forests (ROA Government)	September 19, 1998	No Amendment
II. g) Legal Protection of Underground Resources			
1	Procedures for Underground Resources Use for Minerals Mining (ROA Government)	August 15, 1994	No Amendment
III. BILATERAL AGREEMENTS			
1	Agreement between the Government of the Republic of Armenia and the Government of Georgia on Cooperation in the Field of Environment and Natural Resources Protection	May 3, 1997	No Amendment

**Table C-2
LAWS ON THE ENVIRONMENT AND WATER MANAGEMENT IN AZERBAIJAN**

No.	Name	Date	In force	Last Amendment
1	Water Code	26.12.1997	17.03.1998	No Amendments
2	Law on Environmental Security	08.06.1999	14.08.1999	30.03.2001
3	Law on Environmental Protection	08.06.1999	10.08.1999	No Amendments
4	Law on Amelioration And Irrigation	05.06.1996	26.09.1996	No Amendments
5	About a Water Economy of Municipalities	29.06.2001	09.08.2001	No Amendments
6	About Water Supply and Waste Waters	28.10.1999	31.01.2000	No Amendments
7	About Sanitary Epidemiological Health	10.11.1992	10.11.1992	20.02.2001
8	On the Use of Energy Resources	30.05.1996	20.11.1996	No Amendments
09	About Protection of Plants	03.12.1996	30.01.1997	No Amendments
10	On pesticides and Agricultural Chemicals	06.05.1997	02.08.1997	No Amendments
11	Forest Code	30.12.1997	03.03.1998	No Amendments
12	On Industrial and Household Wastes	30.06.1998	28.10.1998	No Amendments
13	On Fishing	27.03.1998	24.06.1998	No Amendments
14	About Specifically Protected Natural Territories and Biological Objects	24.03.2000	15.07.2000	No Amendments
15	On Security of Population	30.12.1997	01.04.1998	No Amendments

16	On Bowels of the Earth	13.02.1998	13.02.1998	24.11.2001 15.08.1999 01.12.2001
17	On Electric and Thermal Power Plants	28.12.1999	11.03.2000	No Amendments
18	On Atmosphere Air Protection	27.03.2001	22.06.2001	No Amendments
19	On Hydrometeorological Activity	17.04.1998	25.08.1998	No Amendments
20	On Protection of Health of Population	26.06.1997	31.07.1997	No Amendments
21	Land Code	25.06.1999	08.08.1999	No Amendments
22	About State Border	09.12.1991	09.12.1991	No Amendments
23	About Animals	04.06.1999	08.08.1999	No Amendments
24	About Plant Quarantine	23.04.1996	12.07.1996	07.12.1998
25	Geodesy and cartography	17.04.1998	22.07.1998	No Amendments

**Table C-3
LAWS ON THE ENVIRONMENT AND WATER MANAGEMENT IN GEORGIA**

No.	Name	In Force	Last Amendment
1	Law on Water	16.10.1997	30.06.200
2	Law on Environmental Protection Permits	15.10.1996	No Amendments
3	Law on Environmental Protection	10.12.1996	30.06.2000
4	Law on Melioration of Lands	16.10.1997	21.12.2001
5	Law on Management and Protection of the Sea Coast and River Banks	27.10.2000	No Amendments
6	Law on State Ecological Expertise	15.10.1996	No Amendments
7	Law on Sanitary Protection of Health Resorts	02.03.1998	No Amendments
8	Law on Protection of Soil	12.05.1994	16.09.1997
9	Forest Code	22.06.1999	2.03.2001
10	Law on Underground Resources	17.05.1996	16.03.1999
11	Law on the Protection of Atmospheric Air	01.01.2000	20.06.2000
12	Law on Land Registration	14.10.1996	28.05.1999
13	Law on Ownership of Lands of Agricultural Use	22.03.1996	14.06.2000
14	Law on Fauna	25.12.1996	2.03.2001
15	Law on Protection of Plants from Harmful Organisms	12.10.1994	16.03.1999
16	Law of Agricultural Quarantine	15.05.1997	No Amendments

17	Law on Reimbursement for the Agricultural Use of non-Agricultural Lands and Compensation of Damage	02.10.1997	No Amendments
18	Law on Geodesy and Cartography	28.04.1998	28.05.1999
19	Law on Nuclear and Radioactive Security	30.10.1998	30.06.2000
20	Law on Pesticides and Agricultural Chemicals	25.11.1998	No Amendments
21	Law on Oil and Gas	16.04.1999	2.03.2001
22	Law on Compensation for Damage Caused by Use of Harmful Materials	23.07.1999	No Amendments