National Policy Dialogue on Integrated Water Resources Management in Georgia under the EU Water Initiative

Review of the Georgian Legal and Institutional Water Framework and Recomendations for Implementation of EU Water Framework Directive Principles, including Preparation of a National Water Law

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Introduction

The purpose of this document

This report gives an overview of the Georgian legal and institutional water framework and recomendations for Implementation of EU Water Framework Directive Principles, including recomendations for preparation of a National Water Law.

The report was prepared within the Georgian National Policy Dialogue on Integrated Water Resource Management with the support of the Government of Finland.

The National Policy Dialogue on IWRM

National Policy Dialogues (NPD) on integrated water resources management (IWRM) and water supply and sanitation (WSS) are the main operational instrument of the European Union Water Initiative Component for Eastern Europe, the Caucasus and Central Asia (EECCA).

The NPDs/IWRM provide practical assistance to strengthen integrated water resources management in EECCA countries. They are based on consultations with ministries, agencies and institutions (including science and academia), non-governmental and other national and international organizations.

The UNECE-led NPD/IWRM started in Georgia in September 2010 with meetings of the UNECE Water Convention Secretariat with the Ministry of Environmental Protection and Natural Resources of Georgia (since March 2011 a new name is Ministry of Environmental Protection) and other stakeholders. The dialogue is led in cooperation with the Ministry of Environmental Protection and with the support of the Georgian National Water Partnership.

The NPD/IWRM kick off meeting took place in Tbilisi in March 2011. The National Policy Dialogue on IWRM in Georgia focuses on three major topics: preparation of the National Water Law based on the IWRM principles; setting up the targets for implementation of the UNECE/WHO Protocol on Water and Health of the UNECE Water Convention; and transboundary water cooperation with the neighbouring Azerbaijan. In addition to the EC grant, the NPD/IWRM in Georgia is supported by the Government of Finland and the OSCE. The First SC meeting will take place in the second half of 2011.

Summary

Water resources management is a key strategic issue in terms of political stability and security. Through impacts such as droughts, water scarcity and soil degradation, improper water resource practices and policies could exacerbate already existing tensions leading to greater instability. Already now, there are examples of water related problems in the conflict areas, such as Tskhinvali region. Water resource also poses additional opportunities for the political stability of the whole South Caucasus region through closer international cooperation in the sustainable use of transboundary water resources, namely Kura-Aras River basin. There are several international organizations which since 2002 have been successfully involved in the region to help with Kura-Aras shared water resources joint management and protection.

Current water resources management and protection system of Georgia is lacking in consistency, efficiency and integrity with other sectors and therefore needs overall reorganization in both instiutional and regulatory aspects.

The best way for the reform is to built up the new system on internationally accapted critearia, principles and policies in the field of sustainable water mangement (*Integrated Water Resources Management System*). The most effective solution in the above terms is to design the system in accordance with that of EU water legislation - since water and water pollution have been always among the priority environmental concerns in the EU.

Chapter One : Current State of Water Sector

1.1. Environmental and economic importance of water resources and current situation in water sector

Water related issues have already started to have a significant impact on environment and people in Georgia – effects that will become even more severe in the future for economic development and societal well-being.

Sustainable water resources management is important especially with regard to task to achieve poverty reduction and the Millennium Development Goals. The Millennium Development Goals were adopted by the International community in September 2000 as an attempt to alleviate poverty by 2015 and their aim, *inter alia*, is to eradicate extreme poverty and hunger and ensure environmental sustainability.

The first national report of Georgia on Millennium Development Goals of 2004 focused, for example, its attention on access to safe water supply problem and called for radical reform in water supply and sewage treatment. The measures outlined included granting greater independence to water supply services, enhancing financial planning and management capacity, the establishment of sustained financing mechanisms to secure water supply systems and mobilisation of necessary funds for their repair and maintenance, engagement of the private sector into the management of water supply and sewage systems in major cities. It is expected that implementation of these measures will aid the attainment of the Millennium Development Goals in Georgia.

Water resources management is also a key strategic issue in terms of political stability and security. Through impacts such as droughts, water scarcity and soil degradation, improper water resource practices and policies could exacerbate already existing tensions leading to greater instability. Already now, there are examples of water related problems in the conflict areas, such as Tskhinvali region.

Water resource also poses additional opportunities for the political stability of the whole South Caucasus region through closer international cooperation in the sustainable use of transboundary water resources, namely Kura-Aras River basin[1]. There are several international organizations such as UNDP, GEF,

[1] The reason that the South Caucasus countries - Armenia, Azerbaijan and Georgia are still being collided with the issue of the Kura-Aras River basin is because of problems of pollution. The basin is heavily contaminated by chemical, industrial, biological, agricultural and radioactive pollutants. The failure of wastewater treatment plants plays a major role in this situation. The concentrations of contaminants in the Kura-Aras reach levels that are much higher than standards in any of the three countries or internationally as well. Azerbaijan, the downstream nation, and lacking groundwater resources like Georgia or Armenia, depends on the Kura-Aras for the majority of its agricultural, industrial and household use. As the water flows into Azerbaijan polluted, the Azeris complain about the contamination that takes place upstream in the other nations.

USAID and TACIS which since 2002 have been successfully involved in the region to help with Kura-Aras shared water resources joint management and protection.

Territory of Georgia can be divided into two main river basin groups:

- The Black Sea basin, in the west of the country. The internal renewable surface water resources generated in this basin are estimated at 42.5 km^3/year. The main rivers are, from north to south, the Inguri, Rioni and Chorokhi. The main stream of the Chorokhi rises in Turkey, and the inflow from Turkey is estimated at 6.3 km^3/year.

- The Caspian Sea basin, in the east of the country. The internal renewable surface water resources generated in this basin are estimated at 14.4 km^3/year. The main rivers are, from north to south the Alazani, Iori and Kura rivers, which rise in Georgia and flow into Azerbaijan in Lake Adzhinour, and then flow southeast in Azerbaijan before entering the Caspian Sea. Kura River rises in Turkey, with an inflow from Turkey estimated at 0.91 km^3/year. The inflow of the Debeda River, a southern tributary of the Kura River, is estimated at 0.89 km^3/year from Armenia.

  The renewable groundwater resources are estimated at 17.23 km^3/year, of which 16 km^3/year are considered to be drained by the surface water network. This gives a total of 58.13 km^3/year for internal renewable water resources. The total actual renewable water resources are 63.33 km^3/year.

  In 1990, the total water abstraction was estimated at 3 km^3/year from some 1 700 tube-wells. A further 7 km^3/year could be abstracted in the future according to some of the assessments. Groundwater use was not greatly developed during the Soviet period, due to the emphasis on large-scale state-run surface irrigation schemes.

  In Georgia 25 075 rivers exist with total length 54 768 km, of which 99.4 percent are small rivers with a total length of less than 25 km. 555 rivers of the Black Sea basin and 528 Rivers of the Caspian Sea basin are studied from hydrological point of view. More than 17 000 rivers (total length 32 574 km) belong to the Black Sea basin. There are about 43 dams in Georgia, of which 35 are in east Georgia and 8 in west Georgia, and their total reservoir capacity is estimated at about 3.4 km^3.

  The water is primarily used for irrigation and hydropower generation and less for water supply. The largest dam, for hydropower, is the Inguri dam, with a reservoir capacity of 1.092 km^3. In 1995, hydropower supplied 89 percent of electricity. For irrigation purposes, some 31 dams have been built, with a total reservoir capacity of 1 km^3, of which 782 million m^3 is active. The three largest irrigation reservoirs are all on the Iori River: the Sioni reservoir upstream (325 million m^3), the Tbilisi reservoir (308 million m^3) and the Dalimta reservoir downstream (180 million m^3).

In 2005, the total treated wastewater was estimated at 9 million m^3. There is no tradition of treated wastewater reuse in Georgia. Between 1985 and 1990, the total water withdrawal decreased from 4 600 to 3 500 million m^3 because of the industrial decline since the end of the Soviet Union. During the year 2005 the total water withdrawal was 1 621 million m^3, 66 percent of which comes from surface water and 34 percent from groundwater. Agricultural water withdrawal accounted for 1 055 million m^3 and water withdrawal for domestic purposes for 358 million m^3. Industrial water withdrawal was estimated at 208 million m^3.

The irrigation potential in Georgia is estimated at 725 000 ha. At the beginning of the twentieth century, the total irrigated area in Georgia was about 112 000 ha. Major investments were made in the irrigation sector during the Soviet period. This resulted in a total area of about 500 000 ha equipped for irrigation at the beginning of the 1980s, mainly located in the more arid eastern part of the country.

During the 1990s, civil strife, military conflicts, as well as problems associated with land reform, the transition to a market economy, and the loss of markets with traditional trading partners, contributed to a significant reduction of the irrigated area. It has been reported that during the severe drought in 2000 only about 160 000 ha were irrigated. In 2007, irrigation covered 432 790 ha, of which 31 500 ha equipped wetland and inland valley bottoms and 401 290 ha full or partial control irrigation. River diversion is the main source of water for irrigation. Groundwater is not used for irrigation in Georgia. The main irrigation technology was surface irrigation (372 980 ha). Localized irrigation was practiced on 28 300 ha.

While Georgia is rich in water resources, access to safe drinking water is still a problem almost in all regions. It is further compounded by the uneven natural distribution of water resources across the country, with severe water shortages traditionally experienced by the population of eastern regions.

Community water-supply systems: Ground water represents the major source of drinking water, for rural communities accounting 90% of supply. 65% of drinking water supply is provided by centralised systems, which meets the demand for drinking water of 95% of urban, and 35% of the rural population.