



National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda

Georgia
11 April 2013



GEORGIA

NATIONAL CONSULTATIONS ON WATER IN THE POST-2015 DEVELOPMENT AGENDA

1. IMPORTANCE OF WATER IN NATIONAL DEVELOPMENT OF GEORGIA

Georgia has an abundance of fresh water resources. There are over 26 thousands of rivers with total channel length of some 60 000 km. 99,5% of total number of the rivers are short rivers with a length less than 25 km. The annual mean total flow of the river network is approximately 61,5 billion cubic meters, 52,7 billion of which arises within the territory of Georgia.

Hydrologically, Georgia can be divided into two basins: the Black Sea Basin in the west of the country, and the Caspian Sea Basin in the east. The Black Sea Basin is significantly richer in water resources, with about 75% of the country's total internal renewable surface water resources (IRSWR) generated there, estimated at about 40 billion m³.

There are 860 lakes in Georgia with a total surface area of 175 km² and total volume of 400 million cubic meters. Most of the lakes are small in size, with an area less than 1 km², 43 artificial water reservoirs created for hydro energy, irrigation and drinking purposes.

Georgia also has huge groundwater resources in the limestone of Great Caucasus and many groundwater storages, especially in the lower slope of the Great Caucasus and on the plateaus of Akhalkalaki and Marneuli. The renewable groundwater resources are estimated to be 17.23 km³/y.

The water resources are of significant importance for the population of Georgia. The main water users are:

- hydropower – about 91, 5 %
- households – about 4 %
- agriculture – about 1, 5 %
- Industry and others – about 3 %.

2. KEY NATIONAL PRIORITIES FOR THE SUSTAINABLE DEVELOPMENT OF WATER

2.1 Water Resources Management

Overall, water resources management in Georgia remains highly centralized and yet highly fragmented. There are no mechanisms in place for managing water resources at a local (or river basin) level. No single organization has been assigned the overall responsibility for managing water resources – serving as the 'lead agency' for water resources management, a crucial component of specifically IWRM because of its broad and cross cutting approach.

Currently there is no official prerequisite or policy for introducing the river basin management model in Georgia, even though a new Law on Water (Water Code), applying the principles of river basin oriented water resources management is under consideration within the framework of the UNECE Water Policy Dialogue.

Although the monitoring of water resources is being implemented, for both water quality and quantity, the extent of the monitoring network has been significantly reduced compared to the Soviet period - of about 400 hydrological stations functioning in the past only 29 are currently operational, and typically poorly equipped. Monthly monitoring of physico-chemical water quality is carried out only on 22 rivers in comparison to the 72 rivers had been monitored until 1990s, with in total 33 mainly inorganic parameters being measured. Initial steps have been made towards introducing biological monitoring, mainly in the framework of various international projects.

2.2 Hydropower

Considering the lack of significant oil & gas reserves, hydropower is the only domestic energy resource in Georgia available in abundant amounts. The country's total hydropower potential is estimated at 80 TWh, with an economically viable potential of 27 TWh. At present only approximately 25% of the economically viable hydropower resources are being exploited. Other sources state the total hydropower potential of rivers in Georgia as 50,000 GWh/year, still offering sufficient opportunities to completely supply the internal demand as well as to provide significantly to the export market.

2.3 Irrigation

Georgia is a country with a long history of irrigation development. The area potentially suitable for irrigation has been estimated at 725,000 ha. At the beginning of the twentieth century, the total area equipped for irrigation was about 112,000 ha, expanded to 386,000 ha in 1988. Irrigated lands predominantly are located in the more arid eastern part of the country.

After the independence from the Soviet Union, the area of land actually irrigated quickly declined, and by the time of the severe drought in 2000 only about 160,000 ha were still in use, largely gravity-irrigated systems as most pumping stations had become dysfunctional. While subsequently a rehabilitation program was initiated by the Georgian government, the total area actually continued to decrease, to a total of 73,000 in 2011. Most irrigation is from rivers. Groundwater is generally not used for irrigation in Georgia. The main irrigation technology is surface irrigation.

2.4 Water Supply and Sanitation

All 85 towns and regional centres in Georgia have centralized potable water supply systems. These use mainly groundwater. Approximately 60% of these water supply systems are past their design life and are not working to capacity. The operation, maintenance and repair have been affected by insufficient capital investments, and most systems are not in full working order, characterized by leakages and secondary contamination. Provision of safe water to the people as such is a growing issue in Georgia.

Of all towns and regional centres, only 41 are equipped with sewage systems, while only 30 of them have, or had, a waste water treatment plant. As such, most water supply is not linked to sewerage collection and treatment facilities. Meanwhile it is estimated that 50% of the sewage systems in the country are past their service lives. Repairs and maintenance have been limited due to insufficient investments, and most wastewater is discharged to the rivers untreated.

An important water resources issue for Georgia is water quality. The 2007 to 2009 State of the Environment Report (MEPNR, 2010) states that the quality of fresh surface waters often fails to comply with the European water quality standards, largely due to untreated municipal wastewater discharges. Many cities and towns in Georgia do not treat municipal waste water before

discharging it, while some only provide for primary, mechanical treatment, resulting in increased levels of biological oxygen demand (BOD) are observed in most downstream river sections (NEAP, 2010). Monitoring of water quality in Georgian lakes occasional has shown levels of microbiological contamination exceeding allowable limits.

3 Plans for improvement

A number of initiatives supported by donors and international financial institutions are under way to tackle some of the issues noted above, though improving water quality will take considerable time.

In order to achieve and maintain the appropriate quality of water resources Georgia intends to replace the existing administration principles in water resource management and introduce the integrated river basin management approach. A new Law on Water is under development to introduce this approach in Georgia. The law will address all types of water bodies including groundwater and both water quality and quantity. It will provide for water management at a river-basin level and incorporate all aspects of integrated water resources management, including a water classification system, water quality objectives and standards, water use, water resources planning, pollution prevention, monitoring and enforcement, flood risk management and public participation. . Adoption of the new water law will be a significant step towards establishing internationally accepted water sustainability management practices.

A significant number of large scale projects aimed at improving the sewerage networks and the instillation of wastewater treatment systems in many towns in Georgia are currently at different stages of development. However, given the extensive works which must be carried out at a National level, and the level of investment required, it will be some time before all sewage systems will be upgraded to meet the new standards.

The State provides for the protection of water resources through the regulating of discharges from activities that can have impact on the receiving waters. These new regulations are based on setting standards for various parameters in the receiving waters, which are appropriate for the protection of the natural ecosystem, and potential use of the water resource, for example as a drinking water supply.

4 SUGGESTED AREAS FOR FUTURE SUSTAINABLE DEVELOPMENT TARGETS FOR WATER

4.1 Development and Implementation of National Integrated Water Resources Management System:

- Institutional development and coordination for IWRM.
- Development of legal mechanisms and national policies to support IWRM.
- Development of national and regional conjunctive use strategy for sustainable utilization of surface and groundwater resources based on future trends in water use for different sectors and the potential impacts of climate change.
- Support for capacity building to improve the sustained implementation of IWRM and ongoing assessments based on water nexus and economic approaches
- Improvement of information management.
- Improving public participation in the decision-making process and awareness.

- Facilitation of cooperation on transboundary water courses.

4.2 Strengthening of Water Quantity and Quality Monitoring System:

- Adoption of revised national physico-chemical, biological and hydromorphological monitoring programs for both surface and groundwater, including, geographical coverage, schedule and parameters measured in line with the EU WFD and international standards.
- Updating hydro-meteorological data collection systems with improved national and transboundary stations including the use of online real time monitoring techniques.
- Improvement of Quality Assurance & Quality Control in sampling & analytical practices.

4.3 Improvement of public health through water supply and sanitation

- Strengthening the system of control over water quality, water purification and enhancement of water quality.
- Continuation of actions on the improvement of quality drinking water supply and sanitation.
- Providing local treatment of wastewater discharged into the sewage systems.
- Development and implementation of the national legislation on sanitary protection zones for the drinking water intakes.

4.4 Strengthening of Transboundary Cooperation

- Increased compliance with international environmental agreements.
- Initiation of the dialogue between the Caucasus states on development of mutually acceptable rules and regulations for water resources management on the basis of the principles of the international law and provisions of regional agreements.
- Develop a common water quality index and related river basin status assessment criteria.
- Adopt harmonized regional WQ standards in line with the EU WFD and international best practices.
- Develop a transboundary early warning system for pollution events.

5 WRM MONITORING AND REPORTING ISSUES

As a result of discussions it was considered that today the system of the effective WRM monitoring and reporting system is not in place. The participants of the meeting agreed that a Monitoring and Reporting program for the National IWRM Plan implementation should be developed to keep it on track, to ensure budget allocations are progressing, and other aspects. The reporting should be available to the public.

ROUND TABLE “ National Consultations on water in the post-2015 development agenda” 11 April 2013

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