



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

## **Report on mapping major issues, stakeholders and processes in water sector in Georgia**

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# 1. The National Policy Dialogue on IWRM in Georgia and purpose of this document

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 provides 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 National Policy Dialogue on Integrated Water Resources Management (NPD/IWRM) started in Georgia in September 2010 with meetings of representatives of the UNECE Water Convention Secretariat with representatives of the Ministry of Environmental Protection and Natural Resources (since March 2011 a new name is the Ministry of Environmental Protection) and other stakeholders. The NPD/IWRM kick off meeting took place in Tbilisi in March 2011. The dialogue is led by the Ministry of Environmental Protection in cooperation with the UNECE and with the support of the Georgian National Water Partnership.

Based on the discussions at the meetings in Tbilisi in September 2010 and March 2011, it was proposed that the Georgian NPD/IWRM 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, including accession to the UNECE Water Convention and development of the cooperation with the neighbouring Azerbaijan.

This report gives a very short overview – *an express mapping* - of ongoing activities in the water sector in Georgia and serves as a tool for planning future activities in the NPD/IWRM. The report is based on the discussions at the March 2011 NPD/IWRM kick off meeting (please see the meeting agenda in Annex 2) as well as review of relevant reports and documents – please see a list of the documents in the References. The document can be updated as needed.

The report was prepared within the Georgian NPD/IWRM with the support of the ENVSEC programme through Organization for Security and Cooperation in Europe - OSCE.

## 2. Georgia's major water management issues

Georgia is one of the Southern Caucasus countries; it is bounded to the west by the Black Sea coast (shoreline 310 km), to the north by Russian Federation (border length 815 km), to the south-east by Azerbaijan (460 km), to the south by Armenia (197 km) and to the south-west by Turkey (248 km) (UNECE 2010, p. 6). Most of the water resources of Georgia are of transboundary nature and transboundary water cooperation is an urgent issue in Georgia. Many rivers here are transboundary, going to Azerbaijan, Turkey or coming from Russia and Armenia. In addition there are two lakes, which have transboundary issues, not to mention tributaries, etc.

Georgia has considerable water resources, but water distribution is uneven due to the varying geographic conditions. A bigger problem, however, is maintaining water quality given the inadequate and outdated infrastructure. Defective water distribution infrastructure and contamination from wastewater are causing drinking water quality concerns (the same, page 7). The poor infrastructure for wastewater treatment is a major issue also for the transboundary cooperation – Kura river waters going to Azerbaijan, for instance, arrive to Azerbaijan polluted.

## 3. Changing legal framework for water management at national level in Georgia<sup>1</sup> - preparation of a new Water Law

The Georgian Water Law has been adopted in 1997. It is a very general law lacking the detail required to be practically implemented; the law includes some elements of IWRM principles<sup>2</sup>. Objectives of this law are too broad and general; they foresee highly centralized management; there is no mechanism for water quality management in the law; monitoring results are not translated into water status.

In 2007, there was a large scale legal reform in Georgia which supported liberalization of the economy. As a part of the reform, new laws on licensing and permits were adopted. The new laws conflicts with the existing Water Law. For instance, permitting – the rules for discharge permitting, which are in the Water Law, - was abolished by the licensing law. There are technical requirements in the Water Law but no means to enforce these requirements. In addition, starting as of the year 2005 the green tax system has been abolished this means that the fees for discharges into surface water courses were abolished, and now polluters can discharge without any consequences. This is again in contradiction with the requirements of the Water Law. Therefore, there is a big need in a new framework law.

It is obvious that regarding IWRM, the European Union is far more advanced. Being the EU partner in the EU Neighbourhood Policy, the Government of Georgia has made a commitment to bring its laws and practices closer to those of the European Community, including the water

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<sup>1</sup> The chapter is based on a presentation by Malkhaz Dzeladze and Tamuna Gugushvili "Information on the Draft Water Law And Institutional Structure for Water Management in Georgia", a meeting with Michal Nekvasil, Second Secretary of the EU Delegation in Tbilisi; Water Sector Convergence Plan for Georgia (2010) and the UNECE Environmental Performance Second Assessment for Georgia (2010).

<sup>2</sup> Please see a more detailed overview of the legal framework in the Water Sector Convergence Plan for Georgia at [http://www.ecbsea.org/files/content/ECBSea\\_eng!!!.pdf](http://www.ecbsea.org/files/content/ECBSea_eng!!!.pdf)

protection/management requirements. This process is known as “convergence”. The objective of the process is to support Georgia in its goal of developing economically and socially, while maintaining a high level of environmental protection. As a part of the convergence, the EU supported preparation of the Georgian Water Sector Convergence Plan; the plan includes a calendar of actions to further develop the water legislation in Georgia. As a next step, a new framework draft water law has been prepared. Unfortunately since the institutional structure for water management was changing over the time, the proposed calendar of actions under the Convergence Plan has not been implemented and the draft water law needs to be fully revised to reflect the changed institutional and policy framework.

The new Water Law has been drafted; it covers surface water, groundwater and transitional water. The draft law is based on the principles of the EU Water Framework Directive (WFD). EU WFD is far the most important EU water legislation. Untreated wastewater is the main pollutant in Georgia so the emphasis in the WFD on water quality is critical.

The draft law also builds on principles of the EU Flood Risks Directive, which calls for precautionary flood risk assessment based on flood hazard and risk maps. Flood management is very important for Georgia. Georgia current Water Law has no provisions for flood risk management. There are no legal documents, which would provide rules for management and prevention. It does however have practical measures: hydrometeorological observations, flood forecasting and an electronic database on floods (but only for two regions of Georgia).

The EU Urban Wastewater Directive is also an important basis for the future water legislation of Georgia. This Directive requires that all cities would collect wastewater and treat it, all wastewater treatment plant discharges should be monitored and controlled. In Georgian Water Law, there are general provisions on water quality, but no specific mechanisms for regulation; most of the wastewater treatment plants do not work due to the outdated infrastructure; there is no permitting process for industrial discharges or for the food industry. Technical regulation is not based on standards or is not sensitive to the regional biophysical context.

In the current draft of the new Water Law, the biggest gap here is the financial assessment, which is a very complicated issue, since it’s related to technological needs assessment. Some solutions that would allow adoption of the law without requiring lots of financing at the start were found. Institutional structures etc. will need to be implemented so that it would be possible to make concrete steps to install technology equipment, provide training, and build capacity, etc. these costs are not known of now.

Georgian Government is motivated to adopt the new Water Law and by doing that to start implementing the Water Sector Convergence Plan. This will help to maintain good relationships with the EU and come closer to obtaining a free trade agreement with the EU.

Even, if the new law is adopted, implementation is planned to be difficult. Funding for implementing environmental commitments is very limited, now the staff of the ministry – as well. The government is driven by a question of costs. We are going to have a transitional period for figuring out how to implement the draft law.

The same question arises when we speak about Georgia commitments on transboundary waters.

## 4. Challenges of transboundary water cooperation<sup>3</sup>

The transboundary water cooperation in Southern Caucasus is hindered by a lack of cooperation at the government level, the existing conflicts and lack of finances for water protection measures.

Due to a frozen political conflict between Armenia and Azerbaijan, political transboundary water cooperation at the regional level is not possible. As a result, the cooperation at the regional level is supported by a number of international assistance projects, which focus on specific technical issues, such as water monitoring. However, of course, such a technical cooperation cannot substitute the cooperation on political level.

There are conflicting uses of water upstream and downstream. Conflicts arise out of the different purposes for water that different countries have. One example of conflicting use of surface waters by different countries is evident in Lake Chandaia: for Georgia it's a water buffer against drought. For Azerbaijan is a water body to help with amelioration. It is a challenge to learn how to handle this issue of conflicting interests. Some of the tools proposed for addressing these conflicts are: new monitoring systems with both sides cooperating; developing common indicators for water quality, a new registration system; developing new standards that are needed; new treatment facilities (dispersed versus Central).

There is a need in funding wastewater treatment plants construction; this is done in Georgia mostly with the support of the Asian Development Bank. However, the measures that are currently implemented are not sufficient to bring the quality of wastewaters in Georgia to the standards. It is an official position of Georgian Government that in order to access, the UNECE Water Convention, the wastewater treatment facilities should be fixed and wastewater pollution issues - resolved

## 5. Institutional framework for water management – the ongoing reform<sup>4</sup>

According to the decision of Parliament of Georgia made on the 18<sup>th</sup> of March, 2011<sup>5</sup> the Ministry of Environment Protection and Natural Resources of Georgia became the "Ministry of Environment Protection of Georgia". As a result of the consultations between legislative and executive government, the Parliament approved the reorganization of the Ministry of Environment Protection and Natural Resources of Georgia with three hearings.

As a result of the reorganization, the ministry status has been downgraded (it is not anymore part of the Cabinet of Ministers); the ministry has now less competence and less and less decision-making power. Significant competences, especially on management of natural resources were taken away and moved to the Ministry of Energy (which was now renamed to Ministry of Energy and Natural

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<sup>3</sup> The chapter was prepared based on a presentation at the kick off meeting by Nino Chkhobadze

<sup>4</sup> The chapter is based on the official information from the Ministry (below) and presentations by Marina Makarova, Ministry of Environmental Protection; and a meeting with Michal Nekvasil, Second Secretary of the EU Delegation in Tbilisi

<sup>5</sup> News of 18 March 2011 at [http://moe.gov.ge/index.php?lang\\_id=ENG&sec\\_id=40&info\\_id=1429](http://moe.gov.ge/index.php?lang_id=ENG&sec_id=40&info_id=1429)

Resources), the Ministry of Economy, and the Ministry of Internal Affairs. The reason for these moves is that the current government follows an ultraliberal operational paradigm.

In fact there was an intention to dismantle the ministry fully. The pretext officially was to deal with corruption in the forestry sector. The EU, UN, USA and numerous NGOs send many letters of protest to prevent closing the ministry. The Republic of Georgia has made lots of commitments to the environment in various conventions and protocols. Honoring these commitments requires maintaining sufficient competent staff, which unfortunately they are currently firing. The EU has argued that they should please maintain the capacity to implement the conventions that Georgia has signed. Thanks to those efforts, the ministry remained but with much limited responsibilities.

The current responsibilities of the **Ministry of Environment Protection of Georgia** are as follows: development and implementation of state policy in the field of ecological safety of population, management and control of the system of protected areas, monitoring of environmental pollution and hydrometeorology, state management of waste and chemical substances, monitoring of natural radiation background in environment, land, water, air quality and biodiversity, ecological expertise and issuing the environmental impact assessment permit, promotion of environmental education and awareness raising, cooperation with local and international environmental organizations, coordination and monitoring on implementation of international environmental agreements.

As a result of reorganization the commitments related to the usage and management of natural resources has been transferred to the **Ministry of Energy and Natural Resources** (LEPL "Forestry Agency", LEPL Basic Sapling Nursery, issues regarding to regulation of nuclear and radiation activities, management of minerals in geological environment and functions of spatial information). The functions related to change the purpose of land, define the borders of the state forest fund, increase and reduce the state forest has been transferred into the LEPL **National Agency of Public Registry of the Ministry of Justice**. The functions relate to coast protection works will be implemented by the **Ministry of Regional Development and Infrastructure**.

In water management, the **Ministry of Environment Protection of Georgia** is fully responsible for permitting and environmental services. It completely administers the functions of surface water management and protection. It sets the norms for discharges into surface waters and the norms for technical regulation of abstraction or withdrawal from water bodies. It also monitors water pollution, provides ecological expertise, and issues environmental permits.

With regard to environmental permits the ministry cooperates with international organizations in protecting surface water bodies.

The Ministry of Energy and Natural Resources has a Department of Energy as well as an Agency of Natural Resources. There are two subsidiary bodies that formulate policy on environmental protection: the inspectorate of environmental protection, which controls water bodies. In the recent future these bodies will be abolished, and it's unclear what body will have the inspectorate function. The responsibilities of the Ministry of Energy and Natural Resources include carrying out state policy regarding natural resource management and their abuse so as to achieve rational management; and licensing for the use of groundwater (they do not oversee surface waters). It is not clear what the fate will be for governmental bodies, such as the regional environmental department, will be. On paper they still exist however funding of regional departments is not in 2011 government budget. In addition the entire inspectorate function is in doubt. The reform continues, and it's hard to predict what will happen even as far ahead as one or two months.

It is important that the NPD/IWRM is used to convince the government that the Government should reinstate older governmental structures and institutions, and that the policy and science should consider ecology and economy in an integrated way. Regarding the discussions about inspectorate's and older governmental structures that are currently being reformed by the new government, most top officials of the current government see environment protection as a waste of time that interferes with the investment environment. There is a need in developing policies that allow recognizing the full value of the environment that informs the functioning of government and the economy.

## 6. Relevant international projects in Georgia

The Georgian government has and/or is currently receiving assistance from a number of international donors in the area of water management, water governance, and infrastructure development. The major funders are the EU, including EU member states; UN and the US Aid.

### *EU and EU Member States funded projects*

**Kura River Transboundary River Management:** This EU TACIS funded project, implemented in 2001-2003, was focusing on water quality monitoring issues. The project supported specialists in Georgia, Armenia and Azerbaijan to carry out initial characterizations of the Kura-Araks River.

**Transboundary cooperation for hazard prevention in the Kura-River Basin:** a project implemented by German Government in 2003-2006. The main goal of the project was the improvement of the cross-national cooperation, in particular with regard to increasing environmental security and effective water management in the Kura river basin among the countries of Armenia, Azerbaijan and Georgia. The technical goal of the project was the transfer of knowledge to the South Caucasus states for the development of cross-national cooperation for emergency response planning in the Kura river basin, in particular with regards to: installation-related watercourse protection and cross-border incident management. Through the implementation of the project was developed the international Kura Warning and Alarm Plan. Three International Main Warning Centers were established in Tbilisi, Baku and Yerevan. An example survey of the potential for incidents was carried out in the participating countries in a series of industrial plants etc.

**Western EECCA Water Governance:** This EU TACIS project covered six European Neighborhood Policy countries: Belarus, Moldova, Ukraine, Armenia, Azerbaijan and Georgia. The assistance provided to Georgia under this project has two main objectives: (1) to support development of water quality standards and a classification system for water bodies based on those standards, and (2) to support development of a system for setting emission limit values for individual facilities that takes account of the water quality objectives for the receiving waters. This project started in April 2008 and ends in March 2010. In December 2009, the MEPNR formally requested the Water Governance project to assist with follow-up activities to try to complete work begun under the ECBSea project on the Water Law.

**Environmental collaboration for the Black Sea project: Georgia, Russia, Moldova and Ukraine** (ECBSea) project (implemented in 2007 – 2009) was aimed to assist the Government of



Georgia in the transition process towards an integrated system of river basin management planning as well as actual implementation of the measures required to protect Georgia's water resources. Water Sector Convergence for Georgia has been prepared. The ECBSea project also has prepared a Concept Paper for a new Water Law, which will – if adopted – constitute a significant step on the part of Georgia towards convergence with the EU water sector requirements.

**Transboundary River Management Phase II for the Kura river basin:** This is a EU funded project focusing on support of development of a common monitoring and information management systems to improve transboundary cooperation in the Kura River basin (Armenia, Georgia, Azerbaijan); and enhance capacities of environmental authorities and monitoring establishments engaged in long-term integrated water resources management in the Kura River basin. The long-term aim of the project is to improve water quality in the Kura River basin through transboundary cooperation and adoption of the river basin management approach. Among the project outputs will be: assessment of baseline situation and review of water status based on data available; identification gaps in existing information in terms of WFD requirements; preparing joint monitoring programme; preparing monitoring programme in identified hot-spots; trainings in monitoring according to EU best practices; development of common GIS database platform established to facilitate information management and data exchange between the project countries; preparing draft basin and sub-basin management plans for the selected pilot river basins in each project country using the EU WFD methodology; proposals developed for the future international projects to help to address priority IWRM problems in the project countries; trainings of the beneficiary staff, including provision of necessary guidelines on national languages. Duration of the project is June 2008 – December 2011.

**Regional project implemented by REC Caucasus “Creation of Enabling Environment for Integrated Management of the Kura-Aras Trans-boundary River Basin” (2008 – 2010).**

Elaboration a Road Map on sustainable management of the Kura-Aras river basin through introduction of the EU Water Directives (Period of the document validity: 20-25 years). Using the adopted Road Maps assessment of the works undertaken by the water projects on Kura-Aras starting from 2000. The Regional Environmental Center (REC) and the EU financed the project to do this, which has not been completed the problem lies in relations between Armenia and Azerbaijan. We need to support this effort not only with analysis but with specific actions to deal with these problems. Georgia has separate agreements with both nations, so perhaps we can broker something. Up to now all projects aimed to achieve TWC have not achieved a desirable result.

**Development of Environmental Monitoring and Management Systems in Georgia (DEMMS):**

This project was funded by the Government of Finland. The project was aimed to strengthen environmental monitoring and environmental management systems in Georgia. Among the important outputs of the project are: study and evaluation of the current monitoring systems in Georgia; development of a framework of the strategy and action plan for water monitoring, specification of goals, purposes and objectives of the monitoring system; renovation of seven hydro-meteorological stations located in the western part of Georgia along the River Rioni and its tributaries; installing automatic water level meters with GSM data transfer on seven hydrological stations; carrying out environmental monitoring training. The project was implemented in the period: October 2007-December 2008.

**Analysis for ENPI countries on Social and Economic Benefits of Enhanced Environmental Protection**

The overall objective of this EU funded project is to increase the importance of the environment on the agenda of governments. The specific objective of the project is to improve awareness on social and economic benefits of environmental improvements by analysing these benefits for each specific country. The project's purpose is to improve the capacity of ENP countries and the Russian Federation countries to develop strategies and to prioritise convergence of their environmental policies and legislation with those of the EU under the ENP Action Plans and the EU-Russia Common Economic Space road-map.

### **Introduction of Water Protection Zones in Georgia**

The project is funded by the German Federal Environment Ministry, Federal Environment Agency (UBA), Germany, · Project partners in Georgia: National Center for Disease Control & Public Health (NCDCPH), Georgian Environmental and Biological Monitoring Association (GEBMA) Support by: WHO Regional Office for Europe (WHO Europe) and WHO Country Office in Georgia. The overall goal of the project is to assess the current situation with respect to the design and implementation of water protection zones, the drinking-water quality from small-scale water supplies at the point of consumption, and its impacts on the health of the population in the Dusheti and Marneuli districts. The achievement of these goals will be supported by outreach programmes to the local population, training of local authorities, translation and dissemination of training and awareness-raising materials.

### ***Asian Development Bank projects in Georgia***

**A two-phase Municipal Services Development Project** (total of \$70 million from the Asian Development Fund), currently under implementation, supports the efforts of the authorities to rehabilitate municipal infrastructure, including roads and water supply and sanitation systems across the country. The first two phases encompass a complex package of more than 100 subprojects and are expected to be completed in 2011, 2 years earlier than initially estimated. The majority of subprojects have been concluded, bringing potable water and sanitation to many communities across Georgia. The project is implemented by the Municipal Development Fund—a special intermediation fund designed to be the executive and implementing agency for many donor-funded projects. Technical assistance (TA) for capacity building has been duly addressed and integrated into the project to support the creation of the Municipal Development Fund's long-term vision, corporate strategy, and business model. More information – see [http://www.adb.org/Documents/Fact\\_Sheets/GEO.pdf](http://www.adb.org/Documents/Fact_Sheets/GEO.pdf).

### ***OECD projects in Georgia***

**Financing Strategy for the Urban Water Supply and Sanitation Sector in Georgia:** This was a OECD funded project including two directions or components: the first one dealing with elaboration of the financing strategy for the urban water and wastewater (W&WW) sector in Georgia; and the second - focusing on the assessment of affordability of water and wastewater services for the population in Georgia. The project was carried out under the general guidance of the steering committee consisting of representatives from the Ministry of Finance, the Ministry of Economic Development, the Ministry of Environment Protection and Natural Resources, Gruzvodocanal LLC and other W&WW utilities with the participation of local experts.

In this project, the OECD/EAP Task Force secretariat cooperated with the Georgian Government to assess the financial implications of achieving the Millennium Development Goals; to help the Government of Georgia to set realistic targets for the rehabilitation and development of urban water supply and sanitation infrastructure and services; and to identify options to bridge the financial gap between the expenditure needed for achieving policy objectives and the financing available. It should be noted that the study only addresses urban infrastructure. The project was carried out in 2005. A similar study was undertaken in 2000.

On March 2007 another **project was launched in order to update the Financing Strategy for urban water supply and sanitation (WWS) and to include rural WSS and to establish a total overview of the WSS sector in Georgia and develop an environmental financing strategy.** This was an EU TACIS financed Project: "Promote achieving the Millennium Development Goals on WSS in Georgia through extending the Financing Strategy for WSS to Rural Areas and Facilitating Related National Policy Dialogue".

### *UNDP/Global Environmental Facility (GEF) and ENVSEC projects*

**Reducing Transboundary Degradation in the Kura-Aras basin** was a multi-component **regional project implemented by UNDP-GEF** in 2003-2007. The overall objective of the project was to ensure that the quality and quantity of water resources of the basin meets the short and long-term requirements of the ecosystem and of the communities using the ecosystem. The specific objectives of the project were: to foster regional co-operation; to increase national and regional capacity; to address water quality and quantity problems; to promote changes in the economic sectors causing pollution, water shortages and habitat degradation.

UNDP/GEF component of the project, funded by Global Environmental Facility, was focused on undertaking Stakeholder Analysis, producing Transboundary Diagnostic Analysis, Strategic Action Programme and Ecological Quality Objectives.

UNDP/SIDA component, funded by the Swedish International Development Cooperation Agency, focused on following key technical and policy issues: identifying institutional needs for transboundary management of the basin; building national capacities for Integrated River Basin Planning and Management; developing Kura-Aras National Action Plans for three South Caucasus Countries.

ENVSEC supported the groundwater component – Sustainable Management of Aquifers in the South Caucasus Region, aimed to identify major national transboundary aquifer systems within the region, assess their resources, and identify and define a pilot project to demonstrate sound management of a transboundary aquifer.

Another ENVSEC supported component – Fostering Dialogue between Riparian States for Development and Establishment of Initial Legal and Institutional Frameworks for Increased Cooperation and Joint Management of the Kura-Aras River Basin, focused on exploring possible options for development and establishment of legal and institutional frameworks for the joint management of the natural resources of the basin. Specifically, the project aimed to assist countries to develop a preliminary legal and institutional framework for coordination of regional action for the protection of the Kura-Aras basin environment.

**“Implementation of the UNECE Water Convention and development of an agreement on the management of transboundary watercourses shared by Georgia and Azerbaijan”.** This is an ENVSEC initiative backed by cooperation with UN ECE and OSCE. The reasons behind this project are: there is a need to address environmental degradation of natural resources, especially water; to raise awareness and understanding in the ministry; to identify and assess existing mechanisms of cooperation; to analyze the costs associated with accession and implementation of the UNE C.E. Water Convention; and to promote the Participation of Georgia’s representative from the Ministry of Environment, especially its Legal Board.

A report on costs of accessing the Convention was prepared, which showed the following legal gaps and costs:

1. Prior licensing of wastewater discharges;
2. Setting discharge limit values;
3. Application of BAT (Best Available Technology);
4. Pursuit of water quality objectives.

Legislation already existing at the national level in Georgia covers a significant part of the UN ECE Water Convention, and if it is enforced it gives good legal grounds for the Convention’s implementation. Joining the Water Convention is in line with EU accession policies. The investment costs of joining must be borne by the polluters. The government’s costs include: enforcement, setup and maintenance, monitoring information exchange, early warning systems and to conduct bilateral meetings and planning.

**Integrated Water Management for Georgia:** is an upcoming, major GEF-funded project to be carried out under the auspices of the UNDP, its implementation will start in 2012. It will focus on preparation of a national integrated water management plan for Georgia – in essence, a series of river basin management plans corresponding to the river basin management systems that will be designated within Georgia.

## 7. Conclusions and proposals for the Roadmap

- Support to preparation of the national Water Law is undoubtedly a priority for the NPD/IWRM in Georgia. This corresponds to the political priorities of the Government of Georgia as well. Expert and financial support to preparation of the law should be provided. The Government of Finland offered expert support to the Georgian NPD/IWRM in preparation of the water law, this is a timely support. In addition, a two day policy back-casting exercise (See Annex 1 for details is planned to be conducted as a capacity building activity within preparation of the new Water Law).
- The planned activities concerning the transboundary water cooperation should continue. The focus should be on the high-level policy dialogue on the accession and preparation of the bilateral cooperation agreement with Azerbaijan.
- The started pilot project on the UNECE/WHO-Euro Protocol on Water and Health needs to be brought to the highest political level as soon as possible since currently the Government of

Georgia pursues a very liberal approach to policies and is not likely to adopt regulations with high costs of social and environmental measures (such as target setting is). It would be also useful to coordinate the stakeholder participation activities under the Protocol with the activities on preparation of the new Water Law.

- Since Georgia already has a high state budget deficit and is currently make any decision concerning accession to international legal instruments based on calculation of costs, the water resources financing issues should be in a center of the NPD/IWRM. The NPD/IWRM needs to include a component on the water resources financing, especially on financial strategies and on private sector participation. The previously started by the OECD work under the EUWI NPD aimed at developing financial stability with a financial plan for urban and rural areas should be continued. It is important to discuss affordability of the IWRM; to look at government and infrastructure needs. Furthermore we needed to find cost-effectiveness and cost minimization but the question is over what time frame do we measure cost-effectiveness. We also have to look at benefits and beneficiaries. In that regard we have to look at the allocation of finances between water sectors.
- An analysis of funded international projects showed that most of the international projects are regional, involving all the three Southern Caucasus countries; they intend to address the absence of the cooperation between Armenia and Azerbaijan due to a political conflict existing between these two countries. According to Georgian experts those projects were of low efficiency. This is understandable – any technical projects cannot be a substitute to the political commitment by the countries. The Asian Development Bank efforts to support updating the water infrastructure is a very important direction of work; it will help to improve quality of drinking and swimming water in Georgia and decrease release of polluted waters to neighboring countries. NPD/IWRM will cooperation closely with the EU on the draft Water Law, which was initially prepared within the EU funded projects. Currently there are no duplications between the ongoing projects and the activities of the NPD/IWRM.
- Within the NPD/IWRM implementation of additional pilot projects is possible. Implementation of small scale pilots on implementation of river basin management approach was proposed at the March 2011 kick-off meeting. However, such projects make sense only if there is political support to implementation of environmental measures.

## 8. References

ENVSEC Program UNECE-OSCE Project (2009). Identification of the legal and institutional needs for accession and implementation of the UNECE Water Convention by Georgia.

Ministry of the Environment of Georgia (2010). National Environmental Action Plan.

OECD (2008). Promote achieving the Millennium Development Goals on Water Supply and Sanitation (WSS) in Georgia through extending the Financing Strategy for WSS to Rural Areas and Facilitating Related National Policy Dialogue Water Sector Convergence Plan for Georgia at [http://www.ecbsea.org/files//content/ECBSea\\_eng!!!.pdf](http://www.ecbsea.org/files//content/ECBSea_eng!!!.pdf)

UNECE (2010). Georgia Environmental Performance Second Review.

## **Annex1. Proposal for a Back Casting Exercise to support the NPD/IWRM in Georgia**

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### **Goals:**

1. Examine different policy trajectories over the long term, circa 50 years.
2. Identify what policy frames are key to decision makers in Georgia and how are those related to preparation of the new Water Law.
3. Capacity Building for professionals and lay people to learn-by-doing participatory methods within IWRM principles.
4. Explore in dialogue the degree to which IWRM principles are seriously incorporated in policy, as part of analysis of policy formulation.
5. Develop several scenarios that can serve as temporal assays to help gauge progress in policy development, e.g. identify chokepoints, opportunities, and well actions address them.
6. Develop the basis to sustain a discussion between different sectors in Georgian society (private, public, NGO, academic) on the future of water development.

### **Proposed Schedule**

#### **Preparation: September – December 2011:**

##### Survey of Water Issues

With the mediation of local partners in Georgia, UN ECE and IIASA staff will organize a survey of a select few experts or people knowledgeable about water issues and policy in Georgia. This restricted list might include decision-makers in ministries and businessmen in private water companies, academics, NGO experts, and perhaps bankers with financing oversight for water projects. Knowledge gained in these interviews could provide a basic set of key questions for a questionnaire to a much wider sampling of experts. The target outcome of these interviews and questionnaires is to identify and carefully define the water management goals evident (explicit, but some may be implicit) to key players in Georgian water policy. If this survey is not completed, then the exercises must explicitly identify them at the outset during a plenary meeting of all participants to decide on goals and take ownership of the goals and the process.

##### Development and Refinement of the Policy Exercise

In collaboration with several experts on group process, the policy exercise will be designed to incorporate the latest advances in the field as determined from literature review and expert consultation. This latest version of a policy backcasting exercise will be tested through laboratory participation of students of group process in Poland.

#### **Policy Exercise: February 2012**

**Background Information:** The whole policy exercise has to be bounded so that both participants and facilitators can distinguish between the actions they pursue “inside” (strategy) given the constraints that come from “outside” (scenarios). Where is the boundary? Perhaps what people do in Georgia is the strategy and what occurs outside (EU, Climate Change, Globalization) is in the scenarios. We start the backcasting exercise by helping the participants set a goal or goals. Then we define constraints coming from “outside” in the scenarios that are built around four areas resulting from

values of two critical uncertainties. Then the backcasting will be done against all 4 scenarios. The scenarios must very clearly be the source of obstacles and opportunities, which are then set as a frame within which you do the backcasting exercise. Our target is that the exercise identifies “robust” policies or activities, which lead to the goals assumed by the participants under (almost) all scenarios.

### **Day One - Preparation for Policy Back-Casting Exercise**

Goal for Day One: Georgian partners and international partners review data and procedures as part of consolidating as a team to run the exercise.

1. Use all available documents (including mapping) to summarize the policies, and the players and their history, and to identify key, sensitive questions and issues as well as the likely policy frames (WTO, Climate Change, EU, US, Russia). Based on this review identify two critical factors that are both important and highly uncertain to ordinate the axes that separate the four scenarios;
2. Review the schedule, software, and the different roles of the scenario development team;
3. Get to know the NGO, professor and students and all the others who comprised the team;
4. Practice runs of the process with the students playing the roles of participants and facilitators;
5. Assemble and arrange all documents, data, tools and other paraphernalia to support the exercise;
6. Dinner – Ice–Breaker Reception and Dinner for the Scenario Development Team and the lower tier participants (e.g. those participants that are not VIPs). This can also be done on the evening before Day One.

### **Day Two – Define Scenarios and Goals for Policy Back-Casting Exercise**

Goal for Day Two: Georgian participants develop scenarios and define water goals and take ownership of these as well as of the policy exercise as a whole.

Background: Participants need an open and safe place to “explore the surroundings” - going outside the narrow mandates of organizations or disciplines, and look across them all to identify the factors or variables that influence water quality and quantity in Georgia. A key challenge is to distinguish a known and verifiable trend from uncertainty. The latter constitute “gaps in understanding” that are very important to explore to identify the questions most critical to managing in unknown territory. So two criteria for classifying the issues are: Important vs. Unimportant, and Known vs. Uncertain. Then select the factors that are important but uncertain, select two as the axes for the scenario. Do a sequence of two votes such that the two factors are orthogonal to each other. Top policy makers and other VIPs will probably only participate for a few hours in the morning.

9: 00 – Introductory Talks: Exhortations to “make history”

9: 10 – Go around of brief introductions by each participant

9: 30 – Critically review schedule and operational procedures

9: 45 – Definition of issues critical to long-term water management.

In Plenary

the participants write issues on post-it sticky notes and place them on the wall or whiteboard. The facilitator leads a discussion where the meaning and definition of each issue is settled during group discussion.

10:30 – Break

11:00 – Prioritization of issues critical to long-term water management.

In Plenary, the

participants provide supportive and opposing comments for each issue and then move them in the appropriate place in 4 quadrants defined by the axes (Important vs. Unimportant and Known vs. Uncertain).

Then they vote by placing colored labels (each gets five votes) next to issues from the quadrant 'Important and Uncertain' they consider critical. This voting is done twice in order to select two issues that are highly important and highly uncertain, and they are both 'orthogonal' to each other.

- 12:30 – Plenary discussion to summarize the final set of factors that will provide the axes to orient subsequent discussions about policy. The session concludes with a review of the remaining steps in the schedule.
- 13: 00 – Lunch
- 14: 00 - Scenario Generation: All participants divided into two (or four – depending on the group size) groups (four people per group is ideal), each of which works on one scenario. Start with a picture or collage to create an image (pictures, collage, diagrams) that represents the scenario. Keep in mind that scenarios describe the “outside” – do not include issues or events from inside. Give the scenario a “timeline” divided into decades, and then define the opportunities and obstacles inherent in the description of the scenario. Use group discussion to place them as sticky notes in a sequence along the timeline. Trace any highways (obvious and prominent pathways) that might link a series of opportunities and/or obstacles and note any interconnections between these highways.
- 15:30 – Break
- 16:00 – Plenary: Each group reports back on the details of the scenario it developed: collage, patterns of opportunities and obstacles along a timeline, and goals. Group discussion provides additional comments as a summary critique of weaknesses and strengths of finding so far, and suggestions for overnight discussion and research.
- 16:30 – Policy Generation I: Defining the Goals. Use the Nominal Group Technique, not brainstorming where dominant people can shut off shy peoples' inputs, but where each person individually writes goals down on sticky notes in a space on the wall. Then do clustering first and then prioritize by identifying the one to three most important clusters that bound the destination points. Need to use the “scale of agreement” to check endorsement of the results by the group.
- 18:00 – Plenary Session: brief reflections to conclude Day Two.
- 19:00 – Dinner: continue discussion and critique of scenarios.

### **Day Three – Policy Generation II: Back-Casting Exercise**

Strategy: Use back-stepping review to rigorously re-examine all facets of scenarios (opportunities and obstacles) to define actions, deadlines and points of leverage for policy in the achievement of water goals. VIPs return at the end to review all findings as critical editors and help identify future directions for policy development.

- 9:00 – Introduction and Go-around For All Participants
- 9:15 – Plenary review of what the process, has achieved so far (Date Two) and what is intended (Day Three)
- 9:45 – Sub-groups (either two or four depending on the number of scenarios) critically review (and possibly modify) any and all facets of the scenario so all participants (especially if new ones have joined) understand and agree on them. Begin to identify actions that can take advantage of opportunities or address obstacles on the way to achieving the scenario's goal.
- 10:30 – Break
- 11: 00 – Sub-groups – Define potential policy trajectories within the scenario by placing the adaptive actions at the critical points within the “highways” and identifying links between these trajectories.



- 13:00 – Lunch – VIPs join and are informally briefed during lunch
- 14:00 – Plenary Discussion with VIPs present: Compare and contrast scenarios and the lessons learned from each. Look for actions that are “robust” because successfully exploit opportunities or address obstacles in more than one scenario.
- 15:30 – Break
- 16:00 – Plenary Discussion with VIPs present: Critical Review of lessons learned in all scenarios and derivative products of the exercise (obstacles, opportunities, robust actions and policies); outstanding questions and gaps in understanding which, if answered, would aid the policy development process.
- 17:00 – Plenary Discussion with VIPs present: discuss next steps in the policy process in terms of research and further dialogue
- 17:30 – Closing Talks and reflection on the process and how to improve it to further support the dialogue and policy development.

**Day Four** - Debriefing and Next Steps for the Scenario Development Team, the UN ECE, and local participants.

Goals:

1. Assemble and compare observations about how participants in the Back-casting exercise identified key factors and interactions that would influence the development of policy and practice following IWRM principles.
2. Develop a set of lessons learned from the back-casting exercise based on interpretations of the obstacles and opportunities inherent in the four scenarios and the strategies developed to address them might influence future policy formulation and implementation in Georgia.
3. Discuss next steps in terms of a. research into gaps in understanding identified in the exercise, b. communication and consensus building among stakeholders both within and outside Georgia, c. organization of future events as part of sustaining the NWRPD.

## **Annex 2. Agenda of the kick off meeting of the National Water Policy Dialogue on Integrated Water Resources Management in Georgia, 29 March 2011**

**Date:** 29 March 2011

**Place:** *Ministry of Environmental Protection, 6 Gulua Str., 0114 Tbilisi*

**Languages:** *Georgian and English with translation*

### ***13.30 - 14.30 Introduction to the National Policy Dialogue under the EU Water Initiative***

13.30 – 13.45 National Policy Dialogues on IWRM under the EU Water Initiative in countries of Eastern Europe, the Caucasus and Central Asia -  
*Gulnara Roll, Regional Coordinator, EU Water Initiative*

13.45 – 14.00 Information on the restructuring of the Government of Georgia and how this affects water management – *Marina Makarova, Ministry of Environmental Protection*

14.00 – 14.15 Preparations of the seventh Environment for Europe Ministerial Conference (Astana, 21-23 September 2011) and stakes for Georgia  
*Zaal Lomtadze, Chairperson of the UNECE Committee on Environmental Policy*

### **14.15 – 15.30 Policy Package 1: Institutional and legal reform in the water management sector – the new Georgian Water Law and the application of IWRM..**

14.15 – 14.35 Information on the draft Water Law and institutional structure for water management in Georgia – *Malkhaz Dzneladze, National Expert, Tamuna Gugushvili, National Expert*

14.35 – 14.55 Integrated water resources management and adaptive management: concept, major principles and examples  
*Jan Sendzimir, Research Scholar at IIASA*

14.55 – 15.10 Financing integrated water resources management and plans for the OECD activities under the NPD in Georgia - *Tatiana Efimova of the Organization for Economic Co—Operation and Development (OECD) on*

15.10 – 15.30 Discussion and planning of the future activities

**15.30 – 15.45 Coffee break**

**15:45 – 16:40 Policy Package 2: Transboundary Water Cooperation**

15.45 – 16.05 Presentation of proposals for the report on transboundary water cooperation to be prepared by the NPD IWRM working group on transboundary water cooperation - *Nino Chkhobadze, National Expert*

16:05 – 16.25 The Project “Implementation of the UNECE Water Convention and development of an agreement on the management of transboundary watercourses shared by Georgia and Azerbaijan” and its outcome and findings  
*Nino Malashkhia, Organization for Security and Co-operation in Europe (OSCE)*

16.25 – 16.40 Discussion and planning of the future activities

**16.40 – 18.00 Policy Package 3: The UNECE-WHO/EURO Protocol on Water and Health as a tool for integrated strategies**

16.40 – 17.00 The implementation of the Protocol on Water and Health: methodology, challenges and advantages on the basis of the experience in other UNECE countries - *Rainer Enderlein, UNECE consultant*

17.00 – 17.20 Proposals for establishment of the national targets in accordance with the requirements of the Protocol “Water and Health”- *Alexander Mindorashvili, Ministry of Environment*

17.20 – 17.40 Introduction of water protection zones in Georgia  
*Nana Gabriadze, National Centre for Disease control and Public Health*

17.40 – 18.00 Discussion and planning of future actions