



FACILITATING THE REFORM OF ECONOMIC INSTRUMENTS FOR WATER MANAGEMENT IN GEORGIA

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Background and key objectives of the study

- 2014 Georgia signed Association Agreement with EU & committed to implement EU Water Framework Directive
- WFD includes systematic use of economic instruments, including water pricing, to recover cost of water services (households, industry, farmers)
- Water pricing should also provide incentives for water users to use water efficiently, for the benefit of the environment
- Development of river basin management plans – assessment of costs & scope for cost recovery from all stakeholders



Scope of the study

- An updated assessment of the performance of economic instruments for water management
- Assessments will be made about the current cost of national water management by the various public agencies
- Steps for the reform of EIs to be identified, incl. accompanying measures



What are economic instruments?

What do they do?

- Key principles: User Pays, Polluter Pays
- Provide incentives for sustainable water use by households, farmers, businesses, hydropower plants....
- Furnish financial resources for water services:
 - regular O&M, new investment, renovation
 - management of national water resources – catchment protection, pollution control....
- In most cases economic instruments will have a dual impact – providing both incentive & financial resources.



Georgia's existing economic instruments for water

There are 4 types of economic instruments being used at present:

- fees for abstraction and non-consumptive use of raw water
 - user charges for water supply & sanitation services
 - irrigation water supply tariffs
 - fines for non-compliance.
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- pollution charges were abolished in 2005



Existing economic instruments (i)

Abstraction charge

- Established by Law on Fees for Use of Natural Resources, (2004)

Categories of water resources	GEL/m ³
Group I. Caspian Sea basin rivers lakes and other reservoirs	0.01
Group II. Black Sea basin rivers lakes and other reservoirs	0.005
Group III: Black Sea water	0.003
Water abstraction for thermal power production and irrigation systems	1% of the above fees
Water abstraction for hydropower	0.01 % of the above fees
Surface water abstraction for municipal and rural water supply	0.0001
Groundwater abstraction	
• For bottling	4
• For households use	0.005



Existing economic instruments (i)

Abstraction charge

- Overall, rates very low (“basically, priced at zero”)
- “non-consumptive” use charges even lower (thermal power, hydropower & irrigation)
- No abstraction charge for irrigation - “non-consumptive” use
- Only applies to “licensed use” & surface water use does not require licence. Hence, anomaly



Existing economic instruments (ii) User charges for water services

Cities	Households	Legal entities
	GEL/person per months	GEL/m3
Tbilisi	3.15	4.40
Telavi	1.2	4.30
Akhmeta	0.5	4.30
Gurjaani	1.5	4.30
Sagarejo	0.3	4.30
Dedoplistskaro	0.7	4.30
Signagi	0.8	4.30
Kvareli	0.7	4.30
Lagodekhi	0.5	4.30

In Tbilisi, for households with water meters the tariff is 0.266 GEL/m³, including:

- tariff for water supply – 0.196 GEL/m³**
- tariff for wastewater collection and treatment of waste water – 0.07 GEL/m³**



Existing economic instruments (ii) User charges for water services

- On average, urban municipal water tariffs fail to cover O&M costs and make no contribution to capital cost recovery
- Charges are practically non-existent in rural areas
- Financial deficits of utilities have not been fully offset by government subsidies, hence a shortage of essential funding & deterioration in infrastructure
- Privatisation of Tbilisi water utility in 2007 as GWP; UWCG the monopoly supplier in much of rest of Georgia
- Collective water metering common for urban users, but rare for individual households
- Apparently high domestic water consumption (norm for Tbilisi 800 l/h/d of fresh water & 650 l/h/d of wastewater treated at Gardabani WWTP).



Existing economic instruments (iii)

Irrigation water supply tariffs

- Georgian National Energy and Water Regulatory Commission established tariffs in 2011;
- Typical charges GEL 75/ha in Kura Basin, GEL 40/ha in Black Sea basin.
- Supplied by 4 state-owned companies (Mtkvai-M, Alazni-M, Sioni-M, Kolkheti-M). They are also responsible for collection of the tariffs;
- Farmers' use unmetered water
- No incentive to conserve water & avoid waste
- No information on tariffs' collection or cost recovery levels;



Existing economic instruments (iv)

Fines for non-compliance

- Georgian Administrative Code sets fines for activities offending water resources protection requirements by individuals and legal persons
- Fines related to the protection of freshwater resources vary in the range 100-600 GEL
- Fines for violation of the protection regime of sanitary zones of drinking water intake systems goes up to 4 000 GEL
- Fines for pollution of the Black Sea from ships can be as high as 65 000 GEL
- There were 98 cases of violation of regulations related to freshwater resources protection found in 2008. Total amount of fines collected - 8100 GEL
- Average fine per case (excluding Black Sea pollution) amounted to 83 GEL
- 40% of fines due to Black Sea pollution, 25% to illegal logging & wood processing
- Conclusion- fines for freshwater violations too low to affect behaviour



Existing economic instruments

In general, revenues from existing economic instruments are much lower than financial needs for proper operation, maintenance, rehabilitation and development of water infrastructure



Option i) reform and increased effectiveness of existing instruments

Abstraction charge:

- Set at level which has incentive impact
- Adjust level of charge for non-consumptive use according to circumstances (hydropower, thermal power)
- Review categorisation of irrigation as “non-consumptive”
- Earmark proceeds of abstraction fees to national budget for water resource management



User charges for water & sanitation services:

- To ensure water companies pay for water abstraction
- Estimate impact of tariff change on water users
- Raising urban tariffs up to “affordability limit” of 2.5% of household incomes for 95% of the population; targeted financial support for the rest.
- Includes increasing rate of collection, more metering of individual households, incentives for loss-reduction, etc.



Fines for non-compliance with environmental protection laws

- Raise fines to levels where they “bite” and enforce laws more rigorously.
- Earmarking all or part of revenues for national water resource management budgets

Irrigation water supply charges

- Tariff reform complemented by repair and renovation of distribution systems
- Tariffs to reflect more closely actual water usage (e.g. proxies for use)
- Tariffs to be raised closer to levels recovering O&M costs



Option ii) introduction of new economic instruments

Consideration could be given to the following:

- Pollution charge for discharging into rivers & lakes applying to WWTPs, industries & agriculture;
- Creation of an Environmental Fund for subsidising water-friendly investment, drawing on revenues from the new pollution charge, *int. al.*

Tax changes:

- Product tax levied on agricultural chemicals & lubricants causing non-point source pollution; combined with a deposit-refund scheme for safe disposal of pollutants.
- Lower taxes on water-saving & recycling technologies
- Surcharges on land & property taxes in environmentally sensitive localities to create new funding earmarked for protection and enhancement of local aquatic amenities
- Surcharge tax on hotel bills & other tourism facilities to reflect cost of environmental (inc. catchment) protection, with revenues earmarked for basin water resources management



New economic instruments (contd.)

- Promotion of Payments for Ecosystem Services schemes (involving downstream water users in compensation of upstream land users for promotion of sustainable practices;
- Study of feasibility of a transboundary benefit- and cost-sharing scheme with Azerbaijan for flood warning and prevention (and possibly reduction of water pollution)



Complementary measures & pre-conditions

Effective Implementation of economic instruments will depend on supporting actions, e.g.:

- Changes in national legislation & local regulations
- Institutional reforms & empowerment
- National awareness-raising & education
- Adequate enforcement of measures
- Specifically, parallel improvements in solid waste management
- Supporting policy measures (pricing, tax, etc) in related sectors (agriculture, forestry, tourism, mining & industry, power & energy, environment, etc.)



Criteria to be applied in the choice of options

- Size of likely impact/strength of incentive effect
- Financial & fiscal yield
- Affordability to taxpayers & water users
- Political & social acceptability
- Administrative & practical feasibility (inc. costs)
- Time-scale for implementation
- Speed of results



Milestones for the study: future work

	Apr	May -Jun	Jul	Sep
Deliverable 1: Updated assessment of the performance of economic instruments in Georgia and analysis of reform options				
Deliverable 2: Review of the ways to enhance the use of economic instruments and proposals for the EIs reform steps.				
Deliverable 3: Final Report (OECD/EPIRB) which will encompass all the project results				