

BENEFITS OF TRANSBOUNDARY COOPERATION IN GEORGIA AND AZERBAIJAN - KURA RIVER BASIN

Initial inventory of the potential benefits of cooperative water management

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The context

- Azerbaijan and Georgia have shown commitment to implement the principles of the EU Water Framework Directive
- The accelerating economic development in the recent years puts additional pressure on the environment
- Transboundary cooperation in the Kura basin remains problematic
- A bilateral agreement between Azerbaijan and Georgia on the Kura is supposed to improve cooperation considerably

Transboundary water management issues in the Kura river basin

- Water availability is quite variable
- The main water management issues in the basin include:
  - ✓ **Water pollution**
  - ✓ In recent years, a marked increase in agricultural production and irrigation has led to **over-abstraction of groundwater resources**
  - ✓ Constant growth of the **hydropower sector** (e.g. in Georgia)
  - ✓ **Landslides** and mudflows (in some areas)

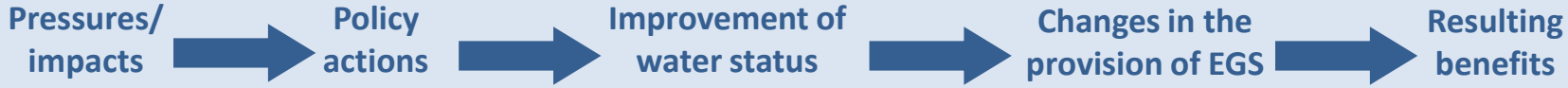
Transboundary cooperation: why is it needed?

→ We need a **tailored framework** for assessing the benefits of transboundary cooperation

Review of existing assessment frameworks

1. The Ecosystem Goods and Services (EGS) Framework

- It is gaining increasing attention in water policy implementation (e.g. WFD)
- It aims at linking pressures/impacts, policy actions, improvement of water status and corresponding benefits



Review of existing assessment frameworks

2. Classification of transboundary benefits of coordinated water management

Benefit Type	Benefits linked to
Type 1: increasing benefits to the river	Improved water quality, river flow characteristics, soil conservation, biodiversity and overall sustainability
Type 2: increasing benefits from the river	Improved water resource management for hydropower and agricultural production, flood drought management
Type 3: reduced costs because of the river	Policy shift to cooperation and development away from dispute/conflict, improved food and energy security
Type 4: increasing benefits beyond the river	Integration of regional infrastructure, markets and trade

Source: Sadoff & Grey, 2002

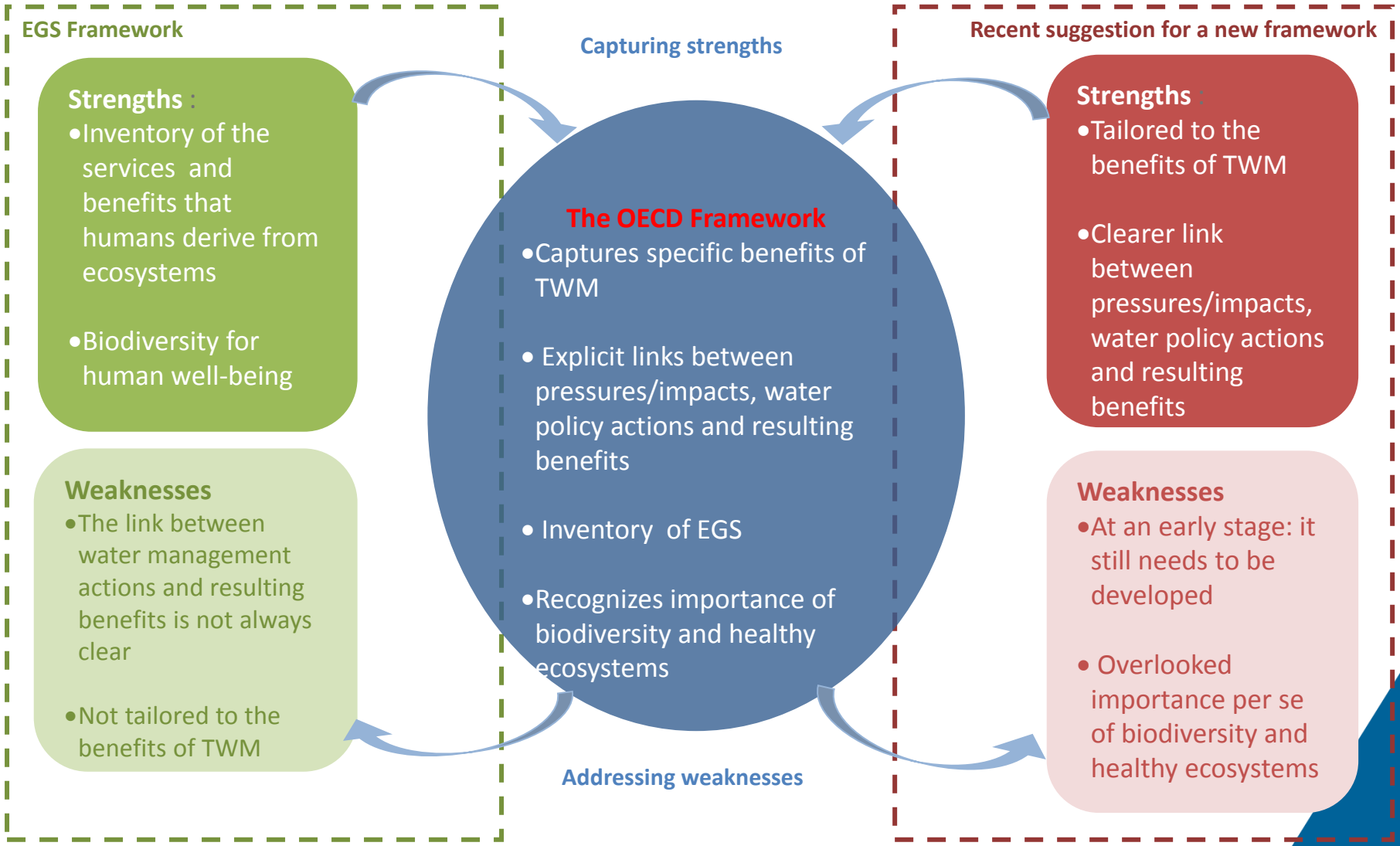
Review of existing assessment frameworks

3. On-going developments: first suggestions for an alternative framework

Benefit type	Description of benefits
Type 1: the benefits from improved water availability	Benefits from cooperation addressing water scarcity issues and result in improved water security and efficient water allocation among sectors
Type 2: the benefits from improved water quality	e.g. improved quality for outdoor recreation, avoided treatment costs, avoided sedimentation costs, avoided health risks
Type 3: the benefits from watershed or the quality of water ecosystems	Flood control, storm protection, groundwater recharge
Type 4: the benefits from improved regional security and integration	Avoided or reduced costs of conflict, improved trade relations and regional integration

Source: Working Group composed by UNECE, Government of the Netherlands, SIWI)

The proposed OECD framework: rationale



The proposed OECD framework

Benefit Type
Type 1 : Benefits related quantity Efficient and equitable w resource allocation + min ecological flows
Type 2: Benefits from im water quality All use values related to i water quality
Type 3: Benefits derived the good functioning of watersheds and aquatic ecosystems Indirect-use values

Example from the framework

Typologies of benefits	EGS Type	EGS	Associated benefits	Specification (if needed)
Type 2: Benefits from improved water quality This category includes all use values (direct benefits) related to improved water quality, as well as the benefits for the ecosystems.	Provisioning services	Water supply	**Reduced health risks** **Reduced treatment costs**	Clean drinking water: reduced nitrates (and other mineral pollutants) Safe drinking water: reduced Toxins, bacteria and other contaminants
		Food supply	**Regeneration and increase of fish and shellfish stocks**	
			Safe food available for consumption	Toxins, bacteria or other contaminants
	Habitat services	Maintenance of biodiversity	**Regeneration of existing species and re-installation of previously disappeared species**	Improved water quality
	Cultural and amenity services	Opportunities for recreation and tourism	**Safe contact waters: Improved swimming conditions**	Nitrates and Phosphorous - Toxins, bacteria and other contaminants
			Surface water recreation	All recreational uses

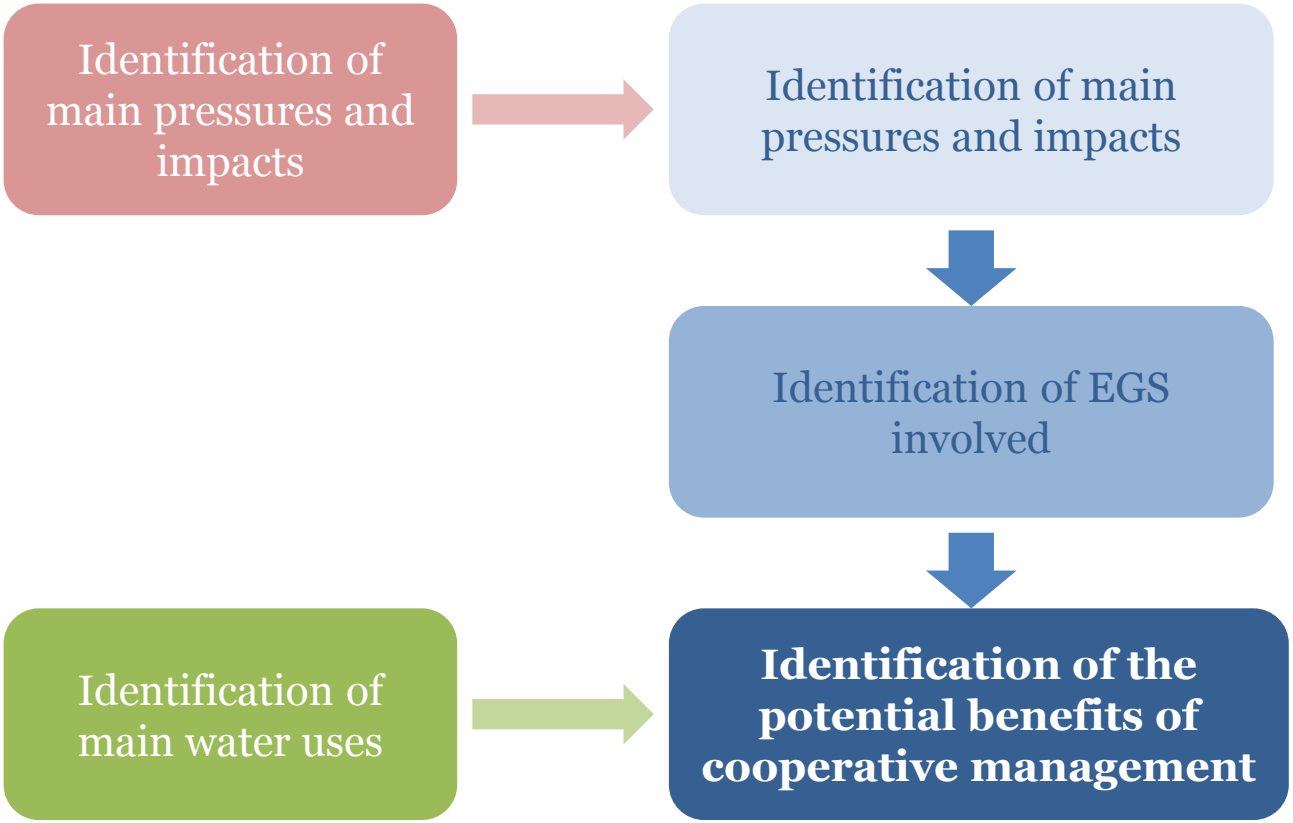
The proposed OECD framework

Benefit Type	EGS involved	Example of benefits
Type 4: Benefits from improved regional security and integration	*To be assessed case by case* (avoided costs of conflicts; improved trade relationships and regional integration)	
Type 5: Water management-related benefits	*To be assessed case by case* (TWM → more cost-effective measures TWM -> improved ecological status -> reduced management costs for the administration)	

New category introduced by this project

Inventory of benefits of trans-boundary water management in GE and AZ

→ Potential benefits were inventoried for each **major trans-boundary water body**



Benefit inventory: some examples

OECD project in the Kura river basin: next steps

Assessment of economic benefits of improved transboundary cooperation between Georgia and Azerbaijan

→ It will include suggestions on different development scenarios leading to a positive-sum game of benefits sharing, including benefits for the environment

Focus → Specific case studies, selected among the major transboundary water bodies