

Pilot Assessment of the Water-Food-Energy-Ecosystems Nexus in the Alazani/Ganykh River Basin

24 June 2014, Geneva

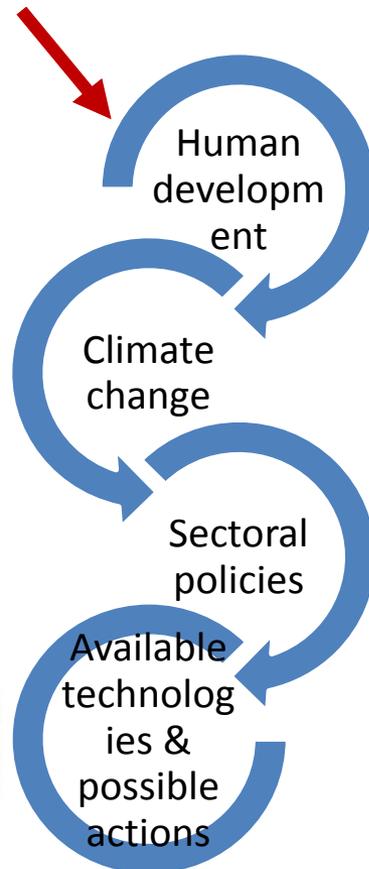
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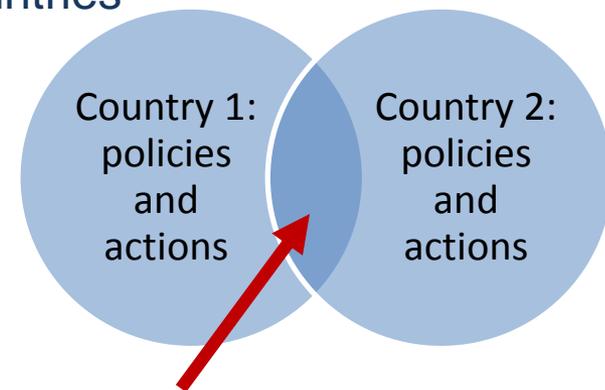
Why a Water-Food-Energy-Ecosystems Nexus in transboundary river basins?

Water-Food-Energy-Ecosystems Nexus

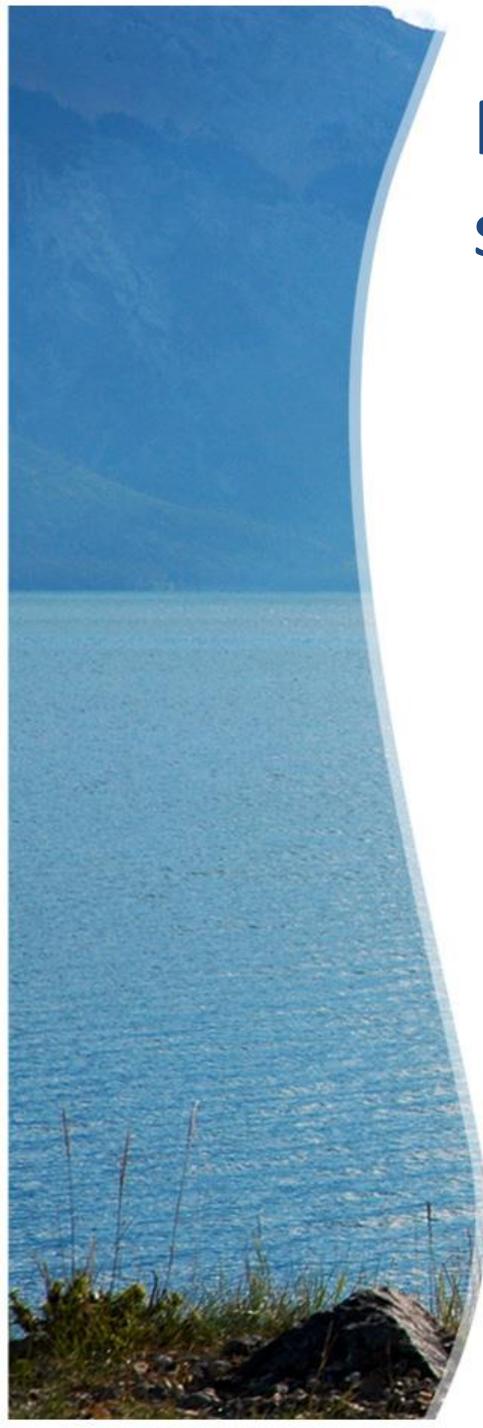


Need to integrate/coordinate:

1. A better understanding of inter-sector and inter-resources dynamics allows accounting for impacts & more effective resource management
2. To make policies and actions more coherent across sectors and countries



Communication, collaboration and joint action!



Previous Nexus case studies have shown that:

- An increased pressure on natural resources, climate change and various socio-economic trends call for systemic thinking and for a better understanding of intersectoral dynamics
- Sectoral policies have impacts on other sectors (not only water-related sectors!)
- Outcomes of a planned policy might not be as expected due to inter-sectoral effects
- Potential economic benefit from integrated planning



Why is assessing inter-sectoral links the Alazani/Ganykh basin timely?

- Good collaboration between Georgia and Azerbaijan – good network
- Major support from UNDP-GEF Kura project: IWRM plans developed in Georgia and in Azerbaijan, Strategic Action
- Need for economic development: inter-sectoral considerations timely to limit economic externalities & environmental impacts
- Existing effort to reduce environmental degradation from both sides
- Opportunities from new energy policy efforts and modernizing agriculture
- Agreement on transboundary waters being negotiated (AZ-GE); multi-sector representation from the countries

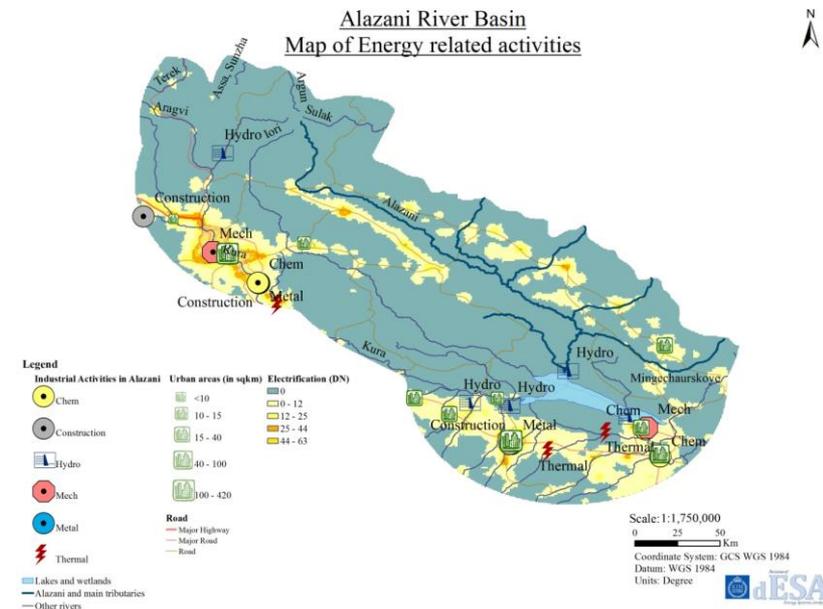
Nexus Workshop in Kachreti, Georgia

25-27 November 2013

- Organised in cooperation with: UNDP/GEF project “Reducing Transboundary Degradation in the Kura Aras River Basin” and the Ministry of Environment Protection and Natural Resources of Georgia



- Among the participants: ministries of environment, energy, agriculture, emergency situations, communities, agencies, companies, civil society



Work in groups and in plenary discussions

1. Nexus issues specific to the basin highlighted

What the countries plan? Are the plans of the different sectors compatible? What do changing drivers & the climate outlook mean for the nexus? How to better reconcile the different uses?

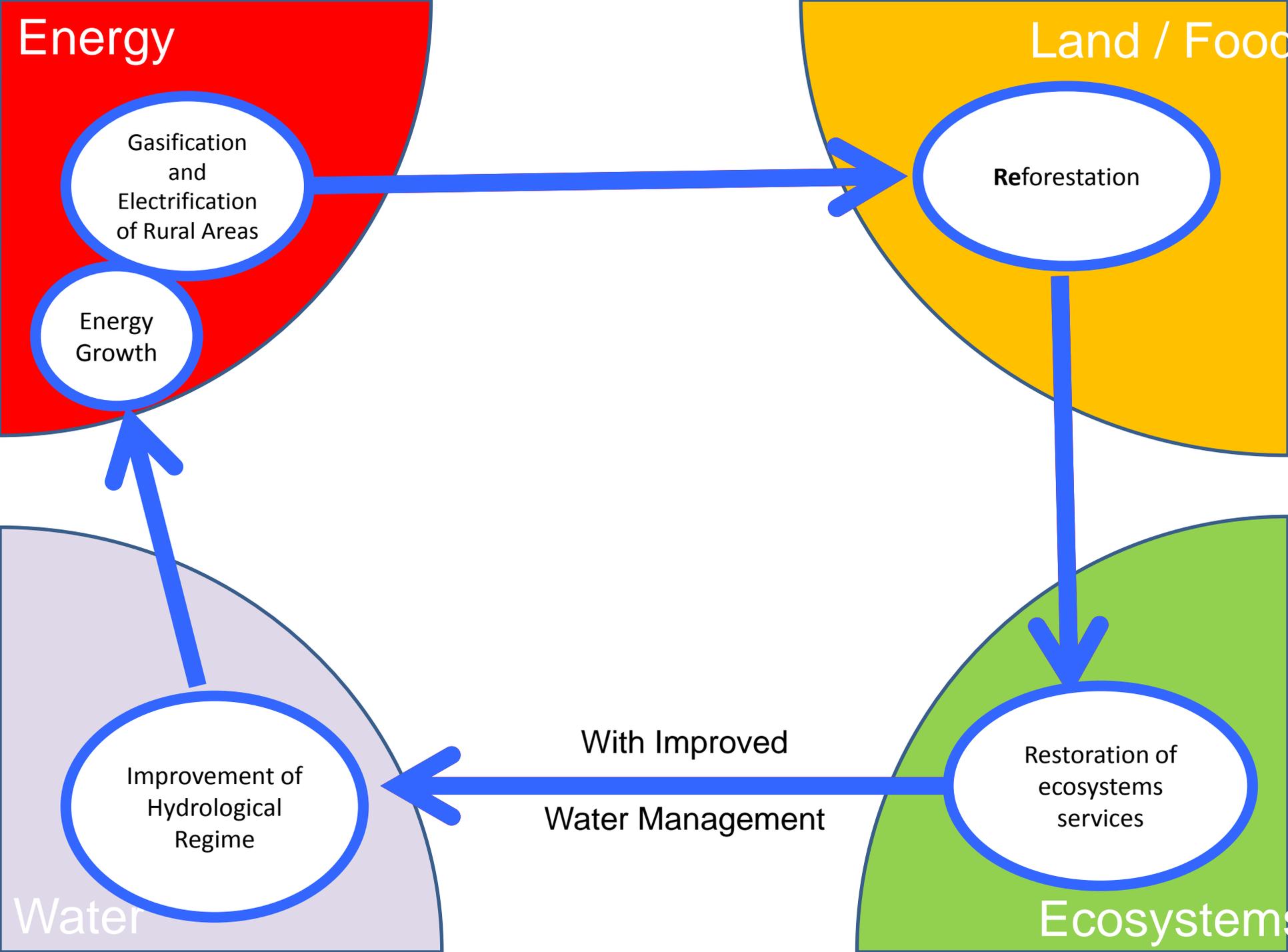


2. Sectoral and national plans shared

What opportunities there are to reduce negative intersectoral impacts and enhance synergy?
Institutional arrangements at transboundary level conducive to intersectoral coordination?

3. Potential solutions identified

Changes to policies, new policies, management and measures practices, institutional arrangements, ways the infrastructure is operated ...



Energy

Land / Food

Ecosystems

Water

Gasification and Electrification of Rural Areas

Energy Growth

Reforestation

Improvement of Hydrological Regime

Restoration of ecosystems services

With Improved Water Management



Some intersectoral challenges and opportunities

- **Wood use** for household consumption contributes to deforestation aggravating land degradation and adds to sediment loads
 - *Deforestation plan, new energy policy, improving access to modern fuel supplies in rural areas (gasification, kerosene), improving viability of agriculture & developing agro-industries*
- Water **infrastructure** is aged and commonly degraded, **water use efficiency** could be improved especially in the agricultural sector (reduces also energy requirements)
 - *Improved regulation of water use, pricing and other economic instruments and new investments in infrastructure*
- **Flooding** damages the different sectors and sectors' plans (e.g. land management)
 - *Improved planning and coordination of measures (also at transboundary level); addressing deforestation*



Some intersectoral challenges and opportunities (...)

- Main sources of water **pollution** into the river are wastewaters and agricultural return waters (impact also on groundwaters)
 - *New wastewater treatment facilities and improvement of agricultural practices (as well as reclamation of illegal landfills)*
- Water **infrastructure** is aged and commonly in degraded condition, **water use efficiency** could be improved especially in the agricultural sector
 - *Improved regulation of water use, pricing and other economic instruments and new investments in infrastructure*
- **Hydropower development** increasing; How to increase sustainability?
 - *apply good practices and guidelines (e.g. of the Alpine countries) to minimise impacts on environment & other uses*

It is essential that policy incentives, economic instruments and other supportive measures are well addressed to support not just development of good practices, but also consider wider intersectoral impacts

Next steps on the Nexus in the Alazani/Ganykh

- **Draft assessment developed and sent for comments to the national authorities**
- **Assessment to be revised for the nexus Task Force 8-9 September 2014**
- Among the preliminary findings some possible joint actions. Who could take action?
- Where and how should the findings be discussed & disseminated in the countries? What role for the NPDs?
- Follow-up activities? Should impacts of some policies or joint actions be assessed in detail?
- Can some of the findings be reflected in the national IWRM plans? Can other processes address some of the issues? — Azerbaijan's new Water Strategy, development plan for the regions? Georgia's new Energy Strategy, new Water Law? The bilateral agreement on water cooperation?
- What can be done with the support of UNDP-GEF Kura project's continuation?