Lessons learned from a global stocktaking of nexus solutions and investments in transboundary basins

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Nexus Solutions and Investments in TB Basins

• A stocktaking of experience from around the world (2020): a survey, a literature review, inputs from expert consultations and a review of regional nexus dialogues.
• Transboundary focus: Water Convention, IUCN’s Bridge project, GEF-IW, and others.
• Nexus solutions and investments to tackle issues of: water quantity, water quality and environment.
• The survey involved stakeholders from different countries and river basins.
• 36 case studies analysed to find: common features and trends related to problems and solutions, financing sources and schemes, obstacles to implementation and enabling factors, perceived added value and benefits.
Enabling factors and challenges

• **Enabling factors** for the implementation of nexus solutions: **Stronger transboundary cooperation** (highest ranking), data and information sharing; increased awareness of options and benefits for cross-sector, transboundary trade-offs, compromise and synergies; and innovative operating rules for infrastructure among many others.

• **Challenges** that arise during implementation include: political obstacles, data and information shortcomings, inadequate institutions, financial constraints, persistent policy/sector silos, limited technical capacity, and limited time frames and options for benefit sharing.
North Western Saharan Aquifer System (NWSAS): A package of nexus solutions

Coordinated actions across sectors to implement an energy-led nexus solution (NWSAS nexus assessment)\textsuperscript{[9]}

| Multi-purpose renewable energy and small-scale solar irrigation | Affordable solar energy in irrigation and rural development plans, reduced use of fossil fuels. |
| 7.1 | Technical, legal and economic measures to limit the exploitation of groundwater. |
| 7.2 | Solar energy solutions aggregating energy demands and distributing costs across users. |
| 7.3 | Development and diversification of renewable energy. |
| 7.4 | Restructuring fossil subsidies to facilitate transition to renewable energy. |
| 7.5 | Transboundary sharing of information and experience about renewables. |
| 7.6 | Capacities and awareness about renewables and the efficient use of energy and water. |
| 7.7 |
The Paraná River: Multi-purpose shared infrastructure

**Riparian countries:** Brazil and Paraguay

**Sectors:** water, agriculture, energy, industry

**Transboundary problems tackled:** water quantity, water quality, environmental issues

**Success factors in focus:** multi-purpose use of existing infrastructure

**Financing source:** Itaipu Binacional (binational entity)

**Financing delivery pathways:** project-specific funding, specific programme financing (e.g. climate funds), adaptable programme financing

**Transboundary cooperation framework and/or project:** Treaty of Itaipu 1973 (legal instrument for the exploitation of the hydroelectric potential of the Paraná River)
Sava: A river basin organization facilitating nexus dialogues across countries

International Sava river Basin Commission; World Bank - GEF cross-sectoral «Sava-Drina Corridor Program (SDIP)»
Trifinio water fund: Innovative financing for watershed conservation

Riparian countries: El Salvador, Guatemala and Honduras
Sectors: water, agriculture, energy, environment, industry, tourism
Transboundary problems tackled: water quantity, environment
Success factors in focus: innovative financing
Financing source: TBD (project under development)
Financing delivery pathways: water fund (under development)
Transboundary cooperation framework and/or project: Plan Trifinio
Concluding remarks

• Need for more dialogue, cost/benefit assessment and cases/demonstration of benefits of nexus solutions

• Evidence of nexus investments coming from private sources (energy and agriculture) is still limited, while innovative financing solutions could play a major role in upscaling nexus solutions by leveraging multiple sources (incl. climate): high-level political commitment needed to coordinate and partner across sectors and borders

• To implement and upscale nexus solutions and investments in transboundary basins: basin-level action plans, coordinated strategies and investment plans (also regional, facilitated by regional orgs or IFIs) can be important vehicles

• Operationalization of nexus solutions and investments passes through the nexus proofing of:
  • Institutions and legislation (transboundary water agreements and/or arrangements)
  • Strategies, policies, and projects at basin level