GROUNDWATER MANAGEMENT IN TRANSBOUNDARY RIVER BASIN ORGANIZATIONS

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276 transboundary river basins (TBRBs) have been identified.
592 transboundary aquifers (TBAs) have been identified by UNESCO-IGRAC.
Groundwater at UNESCO-IHP

- UNESCO International Hydrological Programme (IHP):
  - Only intergovernmental programme of the UN system devoted to help improve understanding of water resources and foster effective water management
  - More than 50 years of hydrogeological mapping activities

www.whymap.org
UNESCO-IHP launched the ISARM initiative in the year 2000 aiming at undertaking the **inventory of transboundary aquifers** and develop **recommendations** for improving their management and governance considering scientific, socio-economic, legal, institutional and environmental components.
International Shared Aquifer Resources Management (ISARM) Programme

2000: Starting of the first Worldwide Inventory of Transboundary Aquifers (UNESCO-IHP Resolution XIV-12 - 2000)

2000: Framework document

2008: First TBAs Map
Worldwide inventory: Updated position and delineation of 592 transboundary aquifers
Governance of Transboundary Aquifers

Only 6 TBAs are subjected to an arrangement for water cooperation
Governance of Transboundary River Basins

- Around 30% of TBRBs have a transboundary river basin organization (TBRBO) or joint body in charge of managing the entire basin that includes all countries sharing the basin.
- Around 70% of TBRBs (usually small TBRBs) do not have any domestic or transboundary RBO.

Source: Transboundary Freshwater Dispute Database – Oregon State University
RBOs can play an important role in promoting cooperation over transboundary aquifers.
Out of the existing TBRBOs worldwide, less than 10% have a mandate that covers groundwater.
The potential role of RBOs in promoting cooperation over transboundary aquifers

- Managing and governing a TBA has to start at the domestic level. A solid legal and institutional foundation at domestic level will trigger TBA cooperation frameworks.
- Domestic groundwater governance frameworks usually need either reviewing and upgrading water laws or completing water law with regulations.
- Existing TBRBOs whose mandate covers groundwater could host dedicated attention to transboundary aquifers.
- However, a critical issue for sound governance and management of transboundary aquifers within TBRBOs is that TBAs can be partly or fully inside one or several TBRBs. Hence, the importance of domestic RBOs.

Key messages:

- How to promote cooperation over TBAs?
  - Building upon national government capacities and institutions, and seeking to synergize them towards cooperative mechanisms or,
  - Tapping into the regional existing institutions (e.g. TBRBOs) whose mandates cover groundwater resources.
- Strengthening groundwater capacities in implementation and enforcement both at domestic level and in TBRBOs is then necessary to support cooperation.
Thank you!

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