Efforts Towards Transboundary Groundwater Assessment and Governance: Transboundary Aquifer Assessment Program in Arizona and Sonora

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Groundwater Resources in the World

Transboundary Aquifers of the World and Population Estimate
(Source: Socioeconomic Data and Applications Center; layer name: Population Count Future Estimate 2015)
Invisible and Disappearing

Source: https://ensia.com/features/groundwater-wake-up/
Efforts to Increase Groundwater Visibility

- Groundwater Governance: A Global Framework for Action (Global Environmental Facility)

- Groundwater Visibility Initiative workshop (American Water Resources Association; National Groundwater Association)

- Call to Action: Sustainable Groundwater Management Policy Directives (International Symposium on Managed Aquifer Recharge [ISMAR9])
Principles Established for Transboundary Water Cooperation

- Stakeholder engagement and inclusion
- Proper assessment and data for analysis
- Management and planning
- Integrated water management
- Protecting groundwater resources
Four Pillars of Groundwater Governance (Varady et al. 2016)

- Institutional Setting
- Availability and Access to Information
- Robustness of Civil Society
- Economic and Regulatory Frameworks
UN General Assembly Resolution A/RES/63/124 on the Law of Transboundary Aquifers

- Equitable and reasonable utilization
- Obligations to:
  - Readily exchange data and information
  - Protect and preserve ecosystems
  - Prevent and minimize any detrimental impacts
  - Pollution control and prevention
  - Aquifer monitoring on aquifer systems
  - Prior notification on causing adverse effects
TAAP Background

- U.S. Public Law 109-448
  - Signed by President Bush on Dec. 22, 2006

- Activities coordinated by International Boundary and Water Commission (IBWC)

- IBWC provides framework for coordination of binational assessment activities conducted by U.S. and Mexican agencies, universities, and others participating in the program
Arizona-Sonora Priority Aquifers
The San Pedro Report is the first-ever binational aquifer study prepared and released simultaneously in English and Spanish by the International Boundary Waters Commission.

El Reporte Binacional San Pedro es el primer estudio de acuífero binacional preparado y publicado simultáneamente en inglés y español por la Comisión Internacional de Límites y Aguas.
Mapping TAAP Progress to the Four Pillars of Governance

- Institutional setting
- Availability of access and information and science
- Robustness of civil society
- Economic and regulatory frameworks

Source: Sugg et al. (2015)
Concluding Remarks

- Approaches and principles emerging for groundwater governance
- Institutional readiness to work across borders is very helpful
- Importance of continuing to share lessons learned and further refine principles and best practices
Thank you – questions?
References
