Project Brief

Small Grants Program:

The role of ecosystem services in adaptation to global change for human wellbeing (SGP-HW)

[SGP-HW 056] Transforming Water Governance in South America: From Reaction to Adaptation and Anticipation

Learning from Water Crises: Adaptive and Anticipatory Water Governance Needed in South America

SDGs: Goal 3 (Good health and well-being), Goal 6 (Clean water and sanitation), Goal 13 (Climate action)

Water, a fundamental ecosystem resource, is facing multiple crises in the context of global and local changes. Watersheds in South America have faced different types of crises related to water quantity and water quality (e.g., scarcity, floods, nutrient pollution). Currently, countries are moving from a highly fragmented and centralized model towards integrated water management, but there is still room to strengthen capacities for adaptation, anticipation, and co-creation of knowledge through inter-institutional cooperation and participation of user groups and other actors.

With support from the Inter-American Institute for Global Change Research (IAI), the project Transforming water governance in South America: from reaction to adaptation and anticipation (GovernAgua) has been studying how lessons from six watersheds in South America may contribute to building adaptive and anticipatory governance. These watersheds include: Paraíba do Sul and Piracicaba-Capivari-Jundiaí (PCJ) river basins in Brazil, Laguna del Sauce and Laguna del Cisne basins in Uruguay, and El Morro and Lower Chubut river basins in Argentina.

This project indicates that water crises are complex problems caused by a combination of ecological, climate, economic, and governance factors. It urges collaboration among multiple actors of government and society, given that these crises are closely related to land-use practices and management. In addition, the case studies from Argentina, Brazil and Uruguay reveal that fragmented management among institutions responsible for environmental protection and agricultural productivity is still a challenge.

In-depth analyses of different basin committees (multi stakeholder platforms bringing together government and non-government actors), in terms of how they acted (or not) in the face of water crises, show that such crises generally led to improved monitoring of biophysical indicators. For example, the PCJ case generated a scenario in which water demand projections were made necessary, and the Chubut case made progress with the active participation of water cooperatives in the development of a platform for turbidity measurement. However, the studies point towards prevailing responses being reactive, hence the need to strengthen anticipatory capacities to become better prepared to confront uncertainty.

Researchers also suggest that basin committees with a longer trajectory tend to be better prepared for responding to water crises as shown in the Brazil case. In 2014, when drought season started in São Paulo, the PCJ committee quickly formed a technical group, the Drought

Working Group, which played an important communication and articulation role with local governments during that time.

To systematize the learning through these analyses, researchers interviewed about 100 actors from all basins. In Argentina, the GovernAgua team participates in the Network of Evaluation and Monitoring of Aquatic Ecosystems. In Uruguay, the researchers organized 5 workshops involving different actors, and they are contributing to the elaboration of the basin plan for integrated water management in Laguna del Sauce. In Brazil, the team of researchers held 2 workshops to promote a closer science-policy approach. The GovernAgua team is currently writing a policy brief with the main findings of the project, proposing the need to promote anticipatory actions, interdisciplinary/transdisciplinary practices, social learning among different actors, and a closer dialogue across science-policy-society.

Contact information:
Micaela Trimble: mica.trimble@saras-institute.org
GovernAgua Project: governagua@saras-institute.org
Websites:
http://saras-institute.org/es/governagua-transformando-la-gobernanza-del-agua-en-america-del-sur-de-la-reaccion-a-la-adaptacion-y-la-anticipacion/
http://saras-institute.org/governagua-transforming-water-governance-in-south-america-from-reaction-to-adaptation-and-anticipation/
Social media (#GovernAgua):
www.facebook.com/saras.institute
Twitter: @sarasinstitute
Instagram: instituto.saras

SGP-HW 056

TRANSFORMING WATER GOVERNANCE IN SOUTH AMERICA

From Reaction to Adaptation and Anticipation

Water scarcity Floods Nutrient pollution

Toward Adaptive Water Governance

In response to multiple water crises, integrated water management is needed through inter-institutional cooperation and the participation of multiple actors

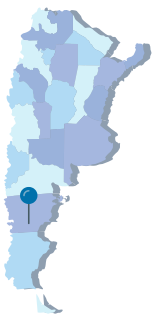
Lessons from Six Watersheds

The research team *GovernAgua* has studied six basins in South America to contribute to building adaptive and anticipatory governance

> **Water crises are complex problems caused by a combination of factors**

Ecology Climate Economy Governance

How did they act in the face of water crises ?

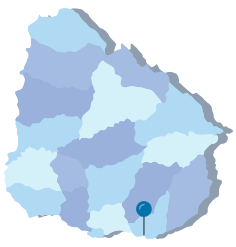


Water cooperatives actively participated in the development of a platform for turbidity measurement

Lower Chubut river
Chubut, Argentina

The PCJ committee generated a scenario for water demand projections

Piracicaba-Capivari- Jundiaí (PCJ)
São Paulo, Brazil



The Ministry of Environment approved the Action Plan to control and reverse the water quality deterioration

Laguna del Sauce
Maldonado, Uruguay

Dry season 2014

The PCJ committee quickly formed a technical group ***the Drought Working Group.*** The group played an important communication and articulation role with local governments

> **Basin committees with a longer trajectory tend to be better prepared for responding to water crises**

The GovernAgua team interviewed about 100 actors from all basins.

Argentina

Participates in the Network of Evaluation and Monitoring of Aquatic Ecosystems

Uruguay

Contributes to the elaboration of the basin plan in Laguna del Sauce

Brazil

Held two workshops to promote a closer science-policy approach