

## *Transboundary Water Institutions*

### Key Message

Transboundary institutions build resilience in river basins and their communities by providing capacity to manage changes to physical, economic, and political stress through basin planning and sustainable water management. Institutions are the 'engine' of transboundary basin governance, providing the means, mandate, and resources necessary to implement formal and informal agreements, reflecting the needs and interests of stakeholders.

To be effective in the management of shared waters, transboundary institutions, including both organisations and networks, ideally have a high degree of autonomy, active interaction with the national system and a high level of inclusiveness. They should promote an ecosystems based approach and exchange of information to enhance decision-making in the implementation of any basin agreements.



### Recommendations

- Transboundary institutions should promote the ecosystems based approach. Rather than focusing on only one aspect of water management, institutions should govern holistically; an integrated management of land, water and living resources that promotes conservation and sustainable and equitable use of water.
- Transboundary institutions ideally should be flexible while maintaining a high degree of autonomy with respect to the national authorities of the basin states. They can be supranational in nature and independent of other national authorities. Impartiality allows for a less political more equitable decision-making process on shared waters. They should take an adaptive management approach, incorporating a modest degree of operational redundancy and utilising conflict resolution mechanisms to address problems as they arise.
- Interconnectivity should be promoted with national agencies which support the implementation of programs, projects and activities. A transboundary institution may involve national institutions through the establishment of operational frameworks, leaving implementation to the States or, the institution may also create a decision-making structure that directly incorporates national agencies.
- Public participation and learning allows local stakeholders, often overlooked and underrepresented, to be part of the decision making and planning process. It enables access to local and traditional knowledge and increases transparency and legitimacy of the institution. *Inclusiveness* and *learning* should be the guiding principles of the institution, with capacity building mainstreamed into all levels of the basin development plan.
- A strong focus on information gathering and exchange should be present in a transboundary institution. Regular exchange of data and information are essential for building sound knowledge on shared resources, conducting basin planning, and critically, the development of dialogue and trust.

## Justification

The interconnectedness of water systems requires an autonomous institution to implement integrated water management. Effectively designed transboundary institutions skilfully manage natural resources while balancing principles of efficiency, equity, and sustainability. Water institutions can also provide legitimacy to water management provided they facilitate inclusive participatory processes in the basin.

A number of transboundary institutions acting together constitutes a transboundary institutional framework, and may include a combination of institutions within a basin at different scales. They include formal structures such as River Basin Organizations (RBOs) but can also broaden to more informal arrangements, such as stakeholder networks that are typically decentralized around multi-level governance.

### Types of Transboundary Water Institutions

Institution	Basin	Formation	Function
Titicaca Basin Authority (ALT)	Lake Titicaca (TDPS) (Bolivia-Peru)	International treaty	Utilisation and protection of shared resources. Technical resources. Basin planning and development. Decisions can influence national level.
Mekong River Committee (MRC)	Lower Mekong (Cambodia-Lao PDR-Thailand-Vietnam)	International treaty	Utilisation and protection of shared resources. Technical resources. Basin planning and development. Decisions can influence national level.
Sixaola Bi-national Watershed Commission	Sixaola (Costa Rica-Panamá)	Extension of existing international institution (PBC)	Basin planning and development. Stakeholder outreach.
Bi-national Management Group (BMG)	Goascorán (El Salvador-Honduras)	Donor funded projects (incl. BRIDGE)	Multisectoral basin planning and development. Stakeholder outreach.
Technical Secretariat of the Bi-national Zaramilla IWRM Commission	Zaramilla (Ecuador-Peru)	Presidential Decree, national water agencies, Donor funded projects (BRIDGE)	Implementation of IWRM. Basin planning and development. Technical coordination.
Leadership and Champion's Networks	Sekong, Sre Pok, Sesan, Titicaca, Zaramilla, Catamayo-Chira, Goascorán, Coatán, Sixaola	Donor funded projects (BRIDGE)	Promote good water governance and transboundary water cooperation policy and advocacy principles at municipal, provincial, and national levels.

## Evidence for action

### Ecosystem based approach to management

An ecosystems approach provides a management framework for transboundary water institutions. It takes an integrated approach to water management, upholding the importance of inclusiveness, public participation and working at multiple scales, ensuring interconnectivity between various institutions operating in a basin. It also means that the institution prioritises the protection



and sustainable management of ecosystems which maximises benefits to stakeholders provided by ecosystem services.

One of the primary objectives of the Titicaca Basin Authority (ALT) is to implement and enforce the management, control and protection of the Lake Titicaca basin (TDPS) as laid out in the Master Plan. The original purpose of the Master Plan was to protect the lake and its inhabitants against floods and extreme

## Further reading

- *Shared resources: issues of governance*, EPLP 72 (2008)
- *Gobernanza del agua en Mesoamérica: dimensión ambiental*, EPLP 63 (2009)
- *Gobernanza del agua en América del Sur : dimensión ambiental*, EPLP 53 (2006)
- *Aspectos jurídicos de la conservación de los glaciares*, EPLP 61 (2006)

weather events. However, since then, works have expanded to include a broader range of conservation and development activities, for example biodiversity assessments, isotropic water balances, ecosystem evaluations, dredging of the Desaguadero River, delineation of protected areas, and providing electricity along river banks.

### ***Clear and flexible mandates***

The first stage of setting up an effective transboundary water institution is to scope the social, political, economic and environmental context in the basin and identify the specific challenges that such a structure will aim to solve. There must be consensus on the role of each institution and a structure should be designed that can effectively deliver on the intended objectives. Informal networks, organised at the local level, can directly contribute to basin objectives by connecting water users and civil society to decision-making processes. Good multi-level governance in transboundary institutions is therefore dependent on the degree to which various levels of engagement are made explicit in the mandate of transboundary institutions.

Each institution must remain flexible and adapt to new situations that may arise. Depending on the intended goals, institutions can be shaped to carry out various functions, including regulatory, programmatic, procedural, and generative. A flexible institution often contains several of these overlapping functions and may tackle many functions simultaneously or one at a time.

- A regulatory institution seeks to prescribe action (allocate water, control pollution)
- A programmatic institution seeks to generate resources for projects that are mutually beneficial (construct dams, maintain environmental flows)
- A procedural institution will seek to establish a framework for collective decision-making (international river basin organization, joint water management committees)
- A generative institution aims to develop new social practices and establishes a broad framework for cooperation (agreement on principles for management)

In 2007 the Ecuadorian and Peruvian authorities began to create the Bi-national Commission for integrated water management (IWRM) of the Zarumilla transboundary river basin. In 2011,

facilitated by BRIDGE, a Technical Secretariat of the Bi-national Commission for IWRM was formed, followed and supported in 2012, by a Presidential Decree that directed national entities to fund IWRM plans in the basin. Terms of Reference for the IWRM Plan of the Zarumilla were then drafted in collaboration with BRIDGE, the Technical Secretariat and national water agencies from both countries. This serves as an example of the evolution of a transboundary water institution through strong mandates but adaptive management structures.

### ***Interconnectivity between levels and institutions***

Good transboundary governance works at multiple scales and ensures linkages between the national and the local levels. To ensure that a transboundary institution is effective therefore, it is crucial that there is adequate interaction with other existing institutions at all scales.

The most specialized and smallest transboundary water institutions operate at the sub-basin level, usually in tributaries within a watershed, such as microwatershed committees. At the basin level, a transboundary water institution focuses on the needs of a river basin and the group of riparian states that are impacted by shared water. To be effective then, institutions across these scales need to act in a coordinated fashion, incorporating decision-making at the lowest possible level with the needs of States and a systematic approach to watershed management at the basin scale.

In the Sixaola River Basin, shared between Costa Rica and Panama, a small number of microwatersheds have been created for example, the Lower Yorquin Microwatershed Committee. BRIDGE will support the link between these community-level structures and Sixaola Bi-national Watershed Commission, promoting a multi-level governance approach to water management in the basin.

### ***Public participation and learning***

Public participation and inclusiveness throughout the decision-making and implementation process is essential for water institutions to function effectively. For transboundary water management to work on the ground, agreement is needed between water users at multiple levels of governance. Public participation ensures accountability and transparency, supporting formal and informal institutions, for example RBOs and networks, in implementing transboundary basin management decisions.

In the Goascorán, IUCN and its partners worked with stakeholders to facilitate a revitalisation of the Bi-national Management Group (BMG). The original basin development authority formed with a narrow stakeholder base. Through a series of consultations and workshops with the BMG and groups beyond the water sector, the BMG reformed with a significantly broader base of participants. The revitalized BMG now incorporates local associations of municipalities and local economic development institutions, non-governmental organizations (NGOs) based in the area, and national ministries



© IUCN/Nazareth Porras



including the Ministries of Foreign Affairs, Planning and Territorial Development, Natural Resources and Environment, Governorship, and the Ministry of Agriculture.

### **Knowledge management and information exchange**

Effective management in transboundary basins depends on the use of knowledge that comes from reliable access to data and information. Crucially then, knowledge leads to learning, giving institutions and stakeholders tools they need to carry out effective basin planning. A key factor in the use of information in transboundary basins is trust. If data is suspicious or unreliable, conflicts can emerge making basin planning difficult, if not impossible. Joint collection and monitoring of data is an essential activity for building trust in transboundary basins. Another successful method to build trust is through dialogue and technical coordination. Working together on technical activities such as basin maps, profiles, or water information systems provides a space for dialogue and cooperation, having the effect of strengthening relationships and building trust between stakeholders and institutions.

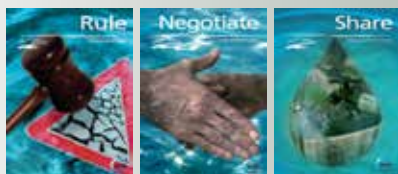
An essential function of a transboundary basin institution is monitoring water quantity and quality through jointly managed actions and coordinating the exchange of information based on established data sharing agreements at basin and watershed levels.<sup>1</sup> Data and information should be kept in databases with transparent protocols, easily accessible to the public and updated regularly. Often it is advisable to have a third party verify data integrity.

In the 3S basin, until recently, information and data has been difficult to obtain for local inhabitants. IUCN has launched a 3S website that focuses on databases and information sharing, linking project documents and 3S basin information to provincial, national, and regional stakeholders. The 3S basin is a transboundary tributary and its data links to the Lower Mekong basin. Basin data of the Lower Mekong is managed by the Mekong River Commission which is an intergovernmental institution created by a treaty signed by Cambodia, Lao PDR, Thailand and Vietnam.

1. Dublin Statement 1992



© IUCN/Nazareth Porras



### **Learn more**

#### **WANI Toolkits**

**RULE** – Reforming Water Governance  
**NEGOTIATE** – Reaching Agreements over Water  
**SHARE** – Managing Waters Across Boundaries

#### **Websites**

[www.waterlawandgovernance.org](http://www.waterlawandgovernance.org)  
[www.iucn.org/bridge](http://www.iucn.org/bridge)

#### **Contact us**

[water@iucn.org](mailto:water@iucn.org)

### **Examples from the field**

IUCN has provided support for creating a transboundary institution in the Catamayo-Chira basin. In February 2012, the Presidents of Peru and Ecuador signed a joint Presidential Declaration calling for the establishment of a bi-national commission for the Catamayo-Chira and Puyango-Tumbes basin. Based on the declaration and the momentum it created, under the leadership of National Water Authorities and the sub-national governments of Loja, Ecuador and Piura, Peru, a process has started toward the establishment of a bi-national commission, or joint institution with the responsibility of transboundary water management in Catamayo-Chira River basin.

In the Coatán Basin shared between Mexico and Guatemala, IUCN is supporting a bottom-up approach to formulating water institutions on both sides of the border. The project focuses on building cooperation at the local level demonstrated by the establishment of the Buena Vista Microwatershed Committee (Chiapas, Mexico) and exchange of experiences between microwatershed councils in San Marcos, Guatemala and Chiapas, Mexico. Local water 'champions' have assembled and organised to sharpen their skills in water governance and cooperation. A range of stakeholders, including municipal leaders, are joining these local-level, informal institutions, catalysing change through joint action plans across borders, sharing information and knowledge on water solutions.

#### **About IUCN**

IUCN, International Union for Conservation of Nature, helps the world find pragmatic solutions to our most pressing environment and development challenges. IUCN's work focuses on valuing and conserving nature, ensuring effective and equitable governance of its use, and deploying nature-based solutions to global challenges in climate, food and development. IUCN supports scientific research, manages field projects all over the world, and brings governments, NGOs, the UN and companies together to develop policy, laws and best practice.

IUCN is the world's oldest and largest global environmental organization, with more than 1,200 government and NGO Members and almost 11,000 volunteer experts in some 160 countries. IUCN's work is supported by over 1,000 staff in 45 offices and hundreds of partners in public, NGO and private sectors around the world.

#### **About BRIDGE - Building River Dialogue and Governance**

BRIDGE (Building River Dialogue and Governance) supports the capacities of countries sharing a river basin to implement effective water management arrangements through a shared vision, benefit-sharing principles and transparent, coherent and cost-effective institutional frameworks. Its goal is to enhance cooperation among riparian countries through applying water diplomacy at multiple levels.



Schweizerische Eidgenossenschaft  
 Confédération suisse  
 Confederazione Svizzera  
 Confederaziun svizra

**Swiss Agency for Development and Cooperation SDC**