

Contributing Paper

Review of the Role of River Basin Organisations in Latin America

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REVIEW OF THE ROLE OF RIVER BASIN ORGANIZATIONS (RBO) IN LATIN AMERICA

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The Latin American Scene

The institutional settings for water resources management in Latin America, cannot be analyzed independently from the overall political and administrative organizational structure prevailing at a given moment in time.

It can be said that, in general, attention to river basins started in various Latin American countries in the late 60's and early 70's in an attempt to replicate the experiences of the Tennessee Valley Authority (TVA) in the United States. Cordeiro (1994) attributes that to the prevailing national policies that favored a regional planning approach, in order to create development poles to ease the pressure on the highly centralized urban and industrial centers. Thus, the TVA model was looked at as a way to achieve this regional planned decentralization. Regional development corporations were created. One example of this is the Valle del Cauca in Colombia.

This was evidently a technocratic and top down approach, not very much different than other attempts at regional planning, the difference being that the regions were river basins and more interest was placed on hydraulic structures. Direct governmental intervention and strong centralized planning were its main characteristics (Cordeiro, 1994).

In general, it cannot be said that this provided satisfactory results. In the late 70's and early 80's some transformations in the socio-political scene started to appear, making the governments pay more attention to the, until then, very much neglected rural scene. Rural poverty, as one of the causes of socio-political unrest, came into focus and efforts were directed towards its mitigation. Integrated Rural Development (IRD) projects appeared. Investments were directed towards agriculture, agroforestry, public health, education, etc. in especially depressed areas. In some instances, rural water supply and sanitation as well as irrigation was included. Although the local communities were often consulted, the execution of the projects was by a centralized government institution and the approach remained very much top down. More often than not, these projects failed because of their great complexity and difficulties involved in their execution and perhaps, most of all, by a lack of commitment on part of the beneficiaries.

But this was also a period of time in which Latin American countries placed great hopes on intra-regional activities. Although previous efforts like the Central American Common Market had passed away due to political unrest in the region, new areas of intra-regional interest appeared especially in South America. Also, a strong international environmental movement started to take root in the Latin American countries. The importance of the role that river basins like the Rio de la Plata, the Amazon,

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etc. would play both in the intra-regional commerce and in the conservation of the environment was realized.

Mechanisms for political dialogue between countries sharing the same river basin started to appear. Examples of these are the Bermejo and Pilcomayo commissions, the Inter Governmental Plata River Basin Commission, the Amazon Cooperation Treaty and others (Cordeiro, 1994). In some cases, the creation of these organizations was originated from the need to have a forum in which to vent possible disputes related to international boundaries or shared waters. This is the case, for example, of the International Boundaries and Waters Commissions between Mexico and Guatemala and between Guatemala and El Salvador² (IDB,1998).

These organizations, although political in nature, had a technical support provided by the national technical organizations in each of the participating countries. Therefore, they remained with a predominantly centralized and top down government intervention.

This change caused two effects: one, that the main purpose of many of these organizations was to reach agreements between countries about shared water resources, most commonly a specific river or a specific stretch of a river. More often than not, these agreements were prompted by the need to build a major hydraulic structure, such as a dam, in an upstream, downstream or a common stretch of a river, with different effects on the sharing countries.

The second was a renewed but bifurcated attention on “integrated river basin development” from the development point of view, and “integrated river basin conservation” from the environmental point of view, both within the national boundaries of Latin American countries as well as in the transboundary basins. Although efforts have been made to merge both, this bipolar stress still remains.

In the local scene, this trend led to focus on a smaller portion of a river basin, the upper river basin or “watershed”, in which “integrated watershed management” activities were planned to induce the adoption of conservation agricultural practices by small farmers on steep slopes, both for their direct economic benefit and for the positive externalities downstream. Although the participation of local farmers and farmer associations was significantly increased, the government executing unit was still prevalent well into the 90’s. Apart from concentrating the action in specific watersheds, the difference between these projects and the previous IRD projects is often blurred, even for practicing professionals and technicians³.

In the international scene, this led to a somewhat frantic search for transnational river basins for which an integrated river basin conservation/development program could be conceived and an “action plan” could be drafted.

The economic crisis of the 80’s forced many Latin American countries to place emphasis on the extra-regional commerce. Although in some cases, such as Central America, the role of the transnational

² The origin of these, however, predates the 60’s and was inspired in similar commissions between Canada and the United States and between the United States and Mexico.

³ Of course, this difference may not be relevant to the local farmers.

river basins was deemed important, the emphasis was on those shared activities that could provide the region with “natural advantages” for external competitiveness.

Two important circumstances of significant effect for river basin management in Latin America appeared in the late 90’s. One originated in the end of the “cold war” and the world wide spread of market economy approaches and a different role of the central governments, trend which the Latin American countries have adopted. The other has its origin in the democratization process allowing stronger civil society participation in matters of national interest.

Another important influencing factor on the technical side, has been a general world wide conceptual change of paradigm towards integrated water resources management, using the river basin as the basic working unit. This opened the door to the “management” concept, which requires new or modified institutional setting in order to make it possible.

Suddenly, experiences such as those of some European countries like the United Kingdom and France for the administration of water in river basins became appealing. The spotlight was gradually moved from activities favored by regional Latin American networks such as the “Latin American Network for Watershed Management” with the support of the United Nation’s FAO, whose emphasis was more on the “watershed management- IRD” type of activities, to “river basin organization” activities. These have received a strong promotional backing from France and have lead to new regional networks such as the Latin American Network of Basin Organizations (LANBO).

In the new market oriented approaches, “France’s model”, as it has sometimes been referred to, also provides a mechanism for incentive-based participatory mechanism for solving conflicts and allocate water between competitive uses or users, such as allocation by consensus, although it is not entirely incompatible with market allocations (IDB, 1998).

It is evident that the role of river basin organizations has increased in importance to accommodate the present trends, as can be seen by a summarized statement taken from the Inter-American Development Bank’s strategy for integrated water resources management, shown in **Box 1** (IDB, 1998).

Box 1

The Role of River Basin Organizations in the IDB Strategy

“The watershed or river basin council approach is recommendable to establish integrated water resources management strategies and to plan for water resources assessments nationally and sub-regionally. It may also be advisable to establish basin committees or councils to coordinate the actions of several overlapping national organisms and administrative jurisdictions and to promote the role and responsibility of the various interest groups in the basin, to facilitate concertation as a problem-solving mechanism.

It may also be a useful mechanism for achieving greater involvement by the stakeholders and to agree on schemes to account for opportunity costs.

In the subregional domain, this approach may be useful in solving problems related to water resources management of transboundary river basins, as a vehicle to promote subregionally coherent water policies and legislation, which may become increasingly needed given present

globalization and integration efforts and trends.

However, it does not mean that basin committees or councils must be established across the board.”.

All of the above has contributed to shape the present situation of Latin America regarding river basin organizations. It can be safely stated that the new trends of the late 90’s are being superimposed on previous types which remain present.

Organizational Structures

This has lead to an array of organizational structures that is by no means easy to analyze. Nor it is easy to identify who the principal actors are, what is the natural or man made environment that has conditioned their actions, and what have been the rules that have conditioned the success or failures for each specific case.

As an overview, several types of river basin organizations (RBOs) can be identified in Latin America⁴, as shown in **Table 1**.

Type of RBO	Main actors	Origin or main purpose	Role in planning and operation of dam projects	Some examples
Watershed management	Central government as executing agency of specific projects. User and community organizations. Bi or trinationnal commissions.	Rural development within its boundaries or downstream effects in a hydraulic structure or hydrological regime.	Negligible. If a dam is present, it preceded the watershed management activities.	<i>Alto Lempa</i> , El Salvador. <i>Paute</i> , Ecuador. <i>Yaracuy</i> , <i>Bocono</i> , <i>Tocuyo</i> , Venezuela. <i>Trifinio</i> , Guatemala, Honduras, El Salvador.
River basin management	Government, municipalities user and community organizations, civil society, stakeholders Sometimes not all in the	Coordinate action of government and non government institutions for solving overriding problems in the basin, usually pollution. Also to implement water resources and environmental	Usually small. There may not be a dam at all, it may already have been built or the government needs coordination for its construction. The same with other hydraulic projects.	<i>Tárcoles</i> , Costa Rica, <i>Amatitlán</i> , Guatemala, <i>Guaiba</i> , <i>Mogi-Guaçu</i> , <i>Apa/Miranda</i> Brazil. <i>Alto Lerma</i> ,

⁴ Because of the nature of this paper this does not pretend, by any means, to be complete or exhaustive.

	same RBO.	management.		Mexico.
International boundaries and waters commissions	Ministries of Foreign Affairs. Supporting technical government organizations.	Forum to agree on differences about boundaries and use of transboundary waters or to implement an International Treaty.	Very little. If a dam is involved, it has been planned and designed by national organizations. The commission is used as a clearinghouse with neighboring countries.	Mexico, Guatemala, El Salvador. <i>Plata Basin Committee</i> Argentina, Bolivia, Brazil, Paraguay, Uruguay.
Binational or Tri-national river basin commissions	Binational and tri-national entities supported by the respective governments. Some may be entitled to draft, bid, finance and administer hydraulic projects. Some tend towards privatization.	Usually formed for construction or operation of an international project. Some disappear after the project is operational. Some continue and generate other projects within their jurisdictional areas. These areas usually do not cover the whole basin.	Important, since some of them are able to promote new projects.	<i>Rio Bermejo</i> Argentina, Bolivia. <i>Salto Grande</i> Argentina, Uruguay. <i>Itaipú</i> Brazil Paraguay. <i>Yaciretá</i> Argentina Paraguay. <i>Pilcomayo</i> Argentina, Bolivia Paraguay
Regional corporations	Originally created for a decentralized public administration. Recently adapted for environmental management.	Autonomous organizations. May include the participation of local governments, civil society and other stakeholders.	Important, since some of them are able to plan and build infrastructure, including dams.	<i>Corporación de Cundinamarca</i> , Colombia

A more detailed analysis of the Latin American RBO's in **Table 1**, may conceivable show that some may be authorized to concede and charge for water use rights or fees and some may not. Some may be well structured or confronting problems, some may be in a formative period and some may have not advanced, for practical purposes, beyond an idea or a dream stage. Some may follow a centralized management model and some may be decentralized. The institutional management mechanisms may be diverse. Some organizations may have been created by initiative of the Federal or the National Government and be controlled by it. Some by the estate, provincial, departmental or municipal

governments. Some by decentralized regional organizations. Yet others may be mixed entities or their leadership may come from the private sector or other civil society entities.

The degree and nature of stakeholder participation in these RBO's may be varied. In some cases only the public sector or only the users or only the private sector may be involved. In other cases the actors may be varied. All relevant stakeholders or only some of them may have a saying. There may be factors that enable or inhibit an organized public participation. Communities and local governments may be empowered to make decisions or may be merely consulted as decisions are made by somebody else. In some cases the real needs and aspirations of the local communities may have been taken into account and in others, the local communities may have been influenced by others.

A recent review of current or proposed legislation in Brazil, Chile, Colombia, Costa Rica, El Salvador, Jamaica and Mexico (Solanes and Getches, 1998) indicates that the river basin approach is explicitly present in the water laws of all but two of them (Chile and Jamaica). Especially in Brazil and Costa Rica, the river basin approach is favored over other systems of incentives, such as the market mechanisms (which is favored in Chile). This study however, concludes that *“as far as river basin organizations, their adequate administration would require a definition of their functions in terms of water and not in terms of all environmental resources (which is very ambitious for the available resources), their separation from the political level, and the provision of autonomy, resources, and clearly defined functions.”*

Notwithstanding the existence of these and other shortcomings, more than 60 RBO's of diverse nature have been created in Brazil since the new water legislation was approved in 1997. And a review of LANBO's constituency (INBO, 1997 and 1998) evidences that many of the RBO's mentioned in **Table 1**, their diversity notwithstanding, belong to that organization.

So what exactly is a river basin organization?

A review of some of the recent work done by the United Nation's Economic Commission for Latin America and the Caribbean (ECLAC, 1997), leads to the conclusion that in this case, as in many others related to water resources management, there are multiple answers. These are related to the objectives of the basin management: (a) integrated sustainable development of the whole river basin region, (b) development and management of its natural resources, or (c) development and management of water resources only, either in a multisectoral or a sectoral approach. It is also evident that it is related also to the different stages of development and management: (1) planning and project design, (2) development and use, or (3) operation and administration.

The role of RBO's in dam projects

Given the evolution, nature, present status and shortcomings of RBO's in Latin America briefly reviewed in this paper, the author would be tempted to draw the following conclusions regarding their role in the planning and decision-making processes of large dams⁵:

⁵ These conclusions are preliminary, without the benefit of more in depth research and analysis of what works and what does not work regarding the Latin American RBO's. This analysis is urgently needed.

- Except in the large Federal countries like Argentina, Brazil and Mexico, where the construction of some dams may be decided by the estate or provincial governments, the decisions regarding the construction of most large dams lies within the realm of the central government. Generally these are civil works that involve large investments and their influence goes beyond their river basin and therefore, are considered of national strategic importance. In some countries, the private sector may sometimes be involved.
- When these projects fall within a transboundary river basin, national , estate or provincial governments may promote the integration of binational or multinational commissions to coordinate the project with neighboring countries, estates or provinces. Sometimes the project precedes the formation of the commission. Some of these commissions, if they are autonomous entities, may afterwards promote the construction of additional dams in their jurisdiction.
- Participation of local communities, civil society and stakeholders in general, has been mainly restricted to consultations about the large dam projects. Very seldom have these played an active role in decision making.
- When a specific country has decided to decentralize its administration and regional development corporations are formed, these corporations may play an active role in dam conceptualization, planning and decision making. These corporations, however, have broader administrative functions that go beyond water resources management and sometimes their jurisdictional limits may not coincide with any particular river basin. Participation of local governments and other stakeholders may depend on the corporation by-laws.
- The role of river basin management organizations is usually focused mainly towards environmental management. Therefore, they will not participate in decisions about large dam construction, unless specifically commissioned by the government for that role. If the role of the government is the most important one in the organization, they may be used as a coordination mechanism for the planning and construction of hydraulic works, including dams. However, if the role of local communities, non governmental organizations and local authorities is strong, they may influence decisions about *not* to build a given project.
- The role of upper watershed management organizations is focused mainly on the solution of local problems and, therefore, their role in large dam decision making is limited.
- The figure of integrated water resources management through RBO's where decisions are made through a bottom-up approach by the locals is being implemented at a small scale in upper watersheds in several countries. However, this figure transposed to entire river basins, such as it is done in countries like the United Kingdom, France or Spain, still needs to overcome serious institutional shortcomings, that originate in legal, organizational and financial issues. Of all countries, Brazil may be closer to that goal, followed by Mexico and Colombia.
- It seems evident that a more in depth analysis of the Latin American RBO's is needed before recommending any across the board approach. In the meantime, a precautionary approach based on

the following World Commission on Dams statement may be advisable: “*adding an additional level of planning and decision making that is effective, rather than paralyzing, may require relatively sophisticated systems of decentralized governance. In fact...it may prove that a coordinating arrangement of less formality than a river basin commission is all that is necessary*”.

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