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BRAZILIAN CASE STUDY ON COMPARATIVE ANALYSIS OF WATER GOVERNANCE

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Abstract. Due to the importance of water resources in Brazil's rapid growth and development, an in-depth understanding of the models and practices related to scarcity, poor distribution, and lack of planning, among others, the Brazilian approach to water resources management requires an understanding of its performance models and practices. To identify the critical aspects of the management process, the main stakeholders and watershed organizations that operate in Brazil are investigated based on a study of 19 cases in more than 10 states in the country. We emphasize the action of committees and their institutional and political arrangements. Moreover, the list of investigated cases is based on discussions that address the theories and practices regarding water resource management. The case study analysis confirms that there is a list of institutional designs of basin organizations in operation and that each of them can only be minimally understood from its historical, legal, and, most importantly, political and social composition. These elements are fundamental, so that the interaction between basin organizations and the institutional set-up present in each state and region can be effectively carried out, towards the creation or consolidation of shared management processes.

Keywords: Water resources management, comparative analysis, public policy, institutionalization.

1.INTRODUCTION

To understand the implementation of water resources policy using a model employed in Brazil, the main parameters are basin organizations, and primarily River Basin Committees (RBCs)¹. The adoption of procedures that facilitate institutional comparison can be an effective mechanism, in the context of several scenarios either previously implemented or being implemented in the country (Castro 2012; Theodoro and Matos 2015). The analysis of public water resource policies, in general, requires research effort that avoids focusing on how they're created, which is a possibility, but instead considers how, when, and why they were institutionalized. The emerging interest on the subject matter goes back to the second half of the 20th century, mainly from a reform of the notion of the modern State, which moves from a purely public action provider function to become more and more a manager of its policies together with other stakeholders (Frey 2000; Henkes 2016).

Specifically, in relation to water resources, this issue is of primary importance as a natural resource that not only has intrinsic value (Totti and Azevedo 2015) but also economic (Moura and Araújo 2014) and legal value. In the context of increasing environmental scarcity, natural disasters, and the demands of

¹"River Basin Committees are collegiate bodies that are part of the National Water Resource Management System in Brazil since 1988. The diverse and democratic composition of the committees ensures that all sectors of society with an interest in water in the basin are represented and have decision-making power over its management. The members of the collegiate are chosen among their peers, be they from the various water-using sectors, civil society organizations, or public authorities. Their main competencies are: to approve the Basin Water Resources Plan; to arbitrate conflicts for the use of water in the first administrative instance; to establish mechanisms and suggest the amount charged for the use of water; among others issues" (CBH, 2017).

population growth (Giddens 2017; Denhez 2016), water (and its management) is a topic that also indicates countless approaches to making public policies around the world (Paquerot 2017; Saetren, 2005).

Moreover, water resource management is an important issue in numerous fields of knowledge and management, including standard practices, which have already been established or are under discussion. Such concepts on governance are presented in the literature and highlight the complexity of the topic, given its importance and plural interests of the various players involved, which can interfere in the process of managing these resources. (Beck et al 1997; Green 2006; Abers 2017).

Water resource management in Brazil reflects the decisions taken by public agencies from two basic perspectives:

- 1) The "*way*" in which water resources were considered in economic and legal terms based on the 1934 Water Code, with a strong centralizing and bureaucratic character, and a focus on the development of national infrastructure sectors.
- 2) The "*reform*" of the legal and institutional apparatus of water resources as a whole, based on the National Water Resources Policy (NWRP) of 1997, which has at its core the concept of integrated, decentralized and shared management, with an emphasis on social sectors and the participation of the private sector.

A better understanding of institutional management processes of water resources in Brazil first requires the identification of the main demands, as well as the possibilities offered by the existing models. Hence, possible similarities and differences in the concepts and practices can be better evaluated, which will contribute to the development of better proposals for institutional intervention to increase/enable democratic social participation and shared integrated management (Silva 2015; Abers et al. 2009). This comparative analysis exercise is complex, but fundamental to the substantiation of Brazilian public policies, and is increasingly being applied in academia and science (Rua and Romanini 2006).

Brazil is considered as one of the countries with the largest reserves of water resources on the planet, and a developed legal framework on this matter (Castro; Heller; Morais 2015). However, this does not preclude the possibility of complexities in the proportions of its territorial and demographic dimensions. In fact, Brazil has not achieved public water policy unification or an integrated institutional design with common action agendas (Cunha and Theodoro 2015; Rua and Romanini 2006; Abers 2013). This is an arrangement that is reinforced, especially by the Brazilian federative design, given that it is an uncoordinated public policy wherein three federated entities are related, and the decision-making power is as follows:

- a) The Union, the States (27), the Federal District, and the municipalities (5,570) distributed in five large geographic-political regions with numerous differences among them (South, Southeast, North, Northeast, Center-West), with the following characteristics:
The distribution of the Brazilian population in 5,570 municipalities shows a high concentration in large urban centers. The 41 municipalities with more than 500,000 inhabitants include 29.9% of Brazil's population (61.2 million inhabitants) and more than half of the Brazilian population (56% or 114.6 million inhabitants) live in only 5.5% of the municipalities (304 municipalities), which are those with more than 100,000 inhabitants. Conversely, only 6.3% of the population (1.4 million) live in 2,451 Brazilian municipalities (44% of the municipalities) with up to 10,000 inhabitants (IBGE - The Brazilian Institute of Geography and Statistics, 2017).
- b) A federative system with three interdependent levels for decision making (municipal, state, federal) in all existing management models related to the environment, water resources, or sanitation;
- c) A very differentiated legal and institutional system among the country's federated entities, which makes water subsidiarity and operational integration difficult.

2.METHODS

To conduct a contextual analysis, a study was devised based on a plausible perspective of identifying the main trends in water resource management for the Brazilian scenario (Trevisan and Bellen 2008) from 19 case studies, as shown in table 1. The challenge associated with these policies, as already identified in other studies, is mainly to consolidate more democratic, participatory, integrated, shared rights and spaces to various groups of constituent interests (Saetren, 2005).

Therefore, this study aims to analyze the social and institutional arrangements that are fundamental to the process of institutional management of water resources based on the river basin committees presented in table 1. The outstanding issue in the investigation of a particular object is the determination of "how" to create

a methodological cut-off, and subsequently, the formulation of generalizations, comparisons, and indicators for future interventions (Désveaux and Fornel 2017; Minayo 2016 and Deslauriers 2005).

The exposure of several types of cases related to water resource management may indicate new paths for public policies in the field (Abers 2013; Rua and Romanini 2006; Pereira and Heller 2015). However, in a comparative analysis, the findings of Wostl and Kranz (2010) revealed that the use of detailed and/or specific cases may complicate the analysis. This means that there must be approaches that consider the context and challenges associated with each situation, while maintaining a level of generality, capable of establishing indicators that allow future analysis and comparisons (Magalhães Jr 2007). For the purpose of this research, the choice made was to qualitatively analyze the collection of data and documents for 19 existing RBCs in Brazil, based on the National Water Resources Policy, from 1997 to 2017. Table 1 shows the variations of existing institutional designs.

Table 1. Main characteristics of the studied RBCs

	RBC	Start year	States	Municipalities
1.	Alto Tietê	1997	SP	37
2.	Araçuaí	2000	MG	23
3.	Cuiabá	1994	MT	13
4.	Gravataí	1989	RS	09
5.	Itajaí	1997	SC	53
6.	Itapicuru	2000	BA	54
7.	Jaguaripe	1999	CE	80
8.	Lagoa da Conceição	2000	SC	01
9.	Litoral Norte	1991	SP	04
10.	Paracatu	1998	MG/GO	21
11.	Paraíba do Sul	1994	MG/SP/RJ	180
12.	Paranaíba	2008	GO/MS/MG	197
13.	PCJ	1993	MG/SP	60
14.	Piranhas-Açu	2006	RN/PB	33
15.	Pirapama	1998	PE	07
16.	Santa Maria	1994	RS	06
17.	Sorocaba-Médio-Tietê	1995	SP	34
18.	Tibagi	2002	PR	42
19.	Velhas	1998	MG	51

It is also possible to determine whether the reach of the committee is due to its internal administrative/deliberative actions or to factors outside its competence (regional and national government policy, private sector interventions, structural financing, etc.), which may also allow for a better understanding of river basin management (Abers et al 2009). A total of 49 documents were selected; these documents directly address the themes discussed in the study, such as the issue of public policies and their implementation, the case studies, and the limits of the basin organizations' actions within the existing Brazilian institutional structure. The document choice was based on the legal, administrative, and institutional factors that are causally linked to the management processes of the investigated RBCs. This led to the inclusion of the minutes of the committee establishment, determinations of the sub-committees, allocation of resources, institutional partnerships, and the definition of the roles of the water agencies and user members.

The idea is to highlight the main practices of these basin organizations, and their shared characteristics and operational models. In addition, aspects related to their political and institutional arrangements are considered as basic points for the analysis of the possible development of interactive public policies. Consequently, the choice of documentary analysis proved to be the most appropriate for the comparative purposes posed in this work. As previously indicated, these documents were accessed from government databases and the basin committees, with an emphasis on those that exist in the water agencies that normally still hold most of the water management data, information, and reports in the country (mainly the National Water Agency).

3.RESULTS AND DISCUSSIONS

Since the water resource distribution scenario is not uniform in any territory, the same is true for the distribution of political and institutional opportunities that are relevant to each basin organization. Even if the

term "*basin organizations*" is understood as a set that refers to the committees, executing agencies, and public agencies, the presented comparative analysis is interpreted primarily via management by RBCs.

Accordingly, it is appropriate to emphasize that Brazil possesses as many models of basin organizations and RBCs as the complexity of the current political and institutional management system as follows:

- a) From a single territory, such as the RBC of Lagoa da Conceição, in the state of Santa Catarina (which is an island);
- b) With few involved municipalities, such as Santa Maria RBC, in the state of Rio Grande do Sul: six municipalities;
- c) With few municipalities, such as Litoral Norte RBC: it has four municipalities in the state of São Paulo, but is linked to an area with no less than 34 water sub-basins;
- d) With dozens of municipalities that can be considered large, such as Jaguaribe RBC (state of Ceará): with 80 cities;
- e) With more than one hundred municipalities, such as Paraíba do Sul RBC, considered as one of the largest in the country: 180 localities involved and belonging to three important states (Minas Gerais, Rio de Janeiro, and São Paulo).

A deeper analysis reveals that in the management of water resources in Brazil, size is not always the defining factor, and several other factors must be considered for the structuring and application of public policies on the subject (OECD, 2015; ABERS, 2013). Paracatu RBC, for example, has a particular configuration, with 21 municipalities (much less than the 51 of the RBC of Rio das Velhas, in Minas Gerais, or the 46 of Tibagi RBC, in Paraná), but is located in two states: Minas Gerais and Goiás. Even the Paranaíba RBC, founded in 2008 and whose differential is present in the Federal District among its 197 municipalities, located between the states of Goiás, Mato Grosso do Sul and Minas Gerais. Each RBC is unique and its particularities should be considered as assumptions for planning and management practices (Theodoro et al 2016; Magalhães Jr 2007).

Likewise, Rio das Velhas (MG) RBC, Rio Gravataí (RS), and Alto Tietê (SP) RBCs are part of the capital of their states, which also initially differentiates them from the most employed management procedures among the 5,570 Brazilian municipalities, since they have a metropolitan region (MR) that must be managed. This does not mean that the presence of a Metropolitan Region is enough to explain the implementation of public policies; however, it helps to identify the typical demands of higher population density areas (urban drainage, solid waste, maintenance of existing infrastructure, etc.) within the political agenda of each region.

An example of this reality is the case of Jaguaribe (CE) RBC, in which there are many differences between the metropolitan region and the municipalities in the basin (population density, level of productive activities in general, land use, etc.). A large volume of water was required for the development of this region because it is semi-arid. This led to conflicts of competence among the managing public agencies because the objectives are different in the case of regional or municipal approaches. This required parallel forms of negotiations aimed at integrated and participatory processes of articulation in regional management. A similar challenge is encountered when management is shared between two or more states of the federation. Normally, there is a tendency for legal disputes of action and the overlapping of environmental recovery programs or projects that are different in their conception of temporal action, infrastructure, and the like.

The case of the Committee for the Integration of Paraíba do Sul River Basin (*Comitê de Integração da Bacia Hidrográfica do Rio Paraíba do Sul - CEIVAP*) demonstrates that even after more than 20 years, the states of São Paulo, Minas Gerais, and Rio de Janeiro are attempting to integrate their three public policy environmental agendas. Created in 1996, before the implementation of the NWRP, the CEIVAP integrated 180 municipalities. In the case of the Federal Decree no. 6,591/2008, it now covers 184 municipalities, 39 of them located in the State of São Paulo, 57 in Rio de Janeiro, and 88 in Minas Gerais.

The result is that social participation is still considered precarious, with the National Water Agency (ANA, 2017), the Pro-Water Management Association of Paraíba do Sul River Basin (*Associação Pró-Gestão das Águas da Bacia Hidrográfica do Rio Paraíba do Sul - AGEVAP*) playing a much more significant role for vertical and institutional integration of the basin than for horizontal, social, and participatory integration (CEIVAP, 2016; Johnsson and Lopes 2013). This was due to the institutional organization structure of the RBC, allied to the traditional bureaucratic model of RBCs established in the country, wherein at least initially, there is a concentrated articulation of government bodies rather than the population in general.

Meanwhile, in Piranhas-Açu RBC, which belongs to the states of Rio Grande do Norte and Paraíba, with 33 municipalities, there are also disputes between entities at the regional and local levels of decision making for both states. This is because the municipalities prefer to create partnerships at the micropolitical level since state governments are not familiar with the processes involved in building public policies,

specifically related to water resources at the regional and national level (OECD, 2015; Cunha and Theodoro 2015; Veiga and Magrini 2017).

The particular practices for each context of water resources management are not only foreseen legally and institutionally (Henkes 2016), but also the consequence of inherent management processes (Luchini 2000) are considered. An alternative to the tripartite committee model is the Itapicuru River, in the state of Bahia. With six sub-basins, the adopted type of management was initially the "*Consortium of Water Users*". This inter-municipal consortium, created in 2000, aggregated 54 cities with different characteristics, but common in the sense of belonging to the so-called "*drought polygon*" and with a history of mining and agricultural activities (Abers 2017). The influence of the Inter-American Development Bank and the state government in the implementation of the proposal for the creation of the basin organization has existed since the beginning of the institutionalization process. In comparison, this same practice (with multilateral operating agencies) has also been adopted in other places such as Rio das Velhas RBC. However, in 2006, the consortium was replaced by the CBHI (*Comitê da Bacia Hidrográfica de Itapirucu* - Committee of the Itapirucu River Basin).

The first approach with respect to the Tibagi River (PR) was to create a consortium for the management of water resources and to attempt to address existing conflicts between agricultural and industrial producers. In this case, this involved the Intermunicipal Consortium of Capivara River Basin (*Consórcio Intermunicipal da Bacia Capivara* - CIBACAP). It was later transformed into the Consortium for Environmental Protection of Tibagi River (*Consórcio Intermunicipal para a Proteção Ambiental do Rio Tibagi* - COPATI), created in 1989. The consortium form was also chosen at Cuiabá RBC, in the state of Mato Grosso, the western region of Brazil, and consisted of 13 municipalities.

In 1994, also prior to law 9,433/97, the consortium management model was installed, but little progress was made in improving participatory practices. Perhaps due to the existence of an environment of centralized power, combined with minimal participation by civil society, the dynamics of this basin organization tended toward the exercise of municipal interests instead of the effective participation of society (Pereira and Heller 2015).

It should be noted that international investment agencies usually favor fundraising for the basin organization model, preferably via committees (Theodoro et al 2016; Abers 2013). Another important aspect is that models other than the watershed committee model may conflict with the recommendations of federal/state legislation on water resources in terms of the processes of representation, discussion, deliberation, etc., given the diversity of context in the consolidation of administrative decisions. A close example of this possibility is the case of the Rio Grande water basin, in which there is no committee, consortium, or commission of users. Instead, management is performed by the Superintendence of Water Resources of the state of Bahia (*Secretaria de Recursos Hídricos* - SRH), as the main entity.

This implies that there is no transfer of power and no participative development of activities, as outlined in the pertinent legislation of each state to build a democratic and decentralized model. In contrast, what resulted was a lack of collective construction of a group identity, aimed at negotiating interests and creating consensus.

The management of water resources may occur outside of the standards of action via committee, but this has not resulted in a greater breadth of democratic, decentralized, and integrated processes. In general, this is a problem to be addressed by state governments, since the participation of civil society is fundamental to new management scenarios (as already in place in other countries – Saritas et al 2015). This indication applies to both committees and other forms of basin organizations: the strength of their actions has proven to be linked to their capabilities for political and social interaction, than simply to institutional and/or educational (Dulac and Cruz 2017) factors.

Examples of the application of this concept can be observed in the RBCs of Rio das Velhas and Itajaí River, which were detailed in Abers (2007), and in Lisboa (2012). In these places, the existence of a publicly recognized institution was key to attracting the attention of the respective committees, in this case, the public universities in the region. Specifically, in the case of Minas Gerais, the Manuelzão Project, linked to UFMG (*Universidade Federal de Minas Gerais* - Federal University of Minas Gerais), was the main political actor in the basin, and achieved its reputation of prominence in the regional scenario, precisely because of the approach towards its institutional partners, including the media. As a result, the committee has created an image of respectability and dynamism towards the people of the basin, based on the notion of what Abers and Keck (2013) refer to as "*practical authority*". This means that apart from valuing the process of building water resource policies, the Manuelzão Project also established its legitimacy as an archetype, and transferred such recognition to the Rio das Velhas RBC. This scenario of consolidating an image and an ideology of joint action of an institution and society was carried out through a series of cooperative actions, and the strengthening of alliances between members of the committee, workshops and technical improvement events.

In the case of the state of São Paulo, at the beginning of its water planning process, which had 22 committees in the early 1990s, the role of civil society was prominent according to Brannstrom et al. (2004). The option was to attempt to maintain a good relationship between different interest groups based on a representative division, occupying internal representative positions (Tucci 2001; Biswas 2008).

In the RBC of Litoral Norte (SP), the high competition and low collaborative interaction between the four cities and their 34 sub-basins meant that the RBC created in 1997 still had minimal systemic planning for the region in 2010. This is because it did not consider the context of interdependence for decision-making, even within a small territory with a high degree of environmental protection. Consequently, its coverage does not constitute a defined geographic unit as a basin or the section of a basin.

This is a similar case to that of the RBC of Lagoa da Conceição (SC). There is also a strong presence of the environmental issue in everyday social life, originating from the tourism dynamics of the region (ANA, 2017). However, there is also a political environment that is considered to be conservative, which eventually generated uncertainties, both in terms of the segments to be represented, and the planning of actions - even though it is a well-defined, reduced, and more recent area of action as a committee (2001) compared to the RBC of Litoral Norte (1997).

The presence of a conservative regional policy can also facilitate a better understanding of the case of the RBC of Santa Maria River, in the neighboring state of Rio Grande do Sul. There were already social movements in this watershed that aimed to decentralize the water resource management, prior to the existence of a state water resource law. The creation of this basin organization in 1994 did not prevent the weak articulation between the different organizations, especially those from the civil society segment.

This is a different integration reality. For example, in the case of the RBC of Gravataí River (RS), which is also in Rio Grande do Sul and even with the presence of its nine municipalities in the Porto Alegre MR, is considered as a very active basin organization with constant participatory processes among its members (Johnsson and Lopes 2013; Tucci 2001). Thus, the Metropolitan Region of Porto Alegre is mentioned as a reference case (Menegat 2002; Frey 2017) in terms of the interaction between its various plans and budgets, despite the difficulties that are inherent to urban planning on this scale. As highlighted by Ansell and Gash (2007), the model applied in Porto Alegre proved to be a form of collaborative management that included citizens in the budget decision-making process of the municipalities involved.

For example, according to Castro (2005), the participatory model in Porto Alegre is partly due to the ascension to power of the coalition of left-wing parties at the municipal level. Another researcher outlined the profile of the integrated water resources management model used in Porto Alegre was Menegat (2002), which was referred to as "*popular administration*". In this case, issues such as public environmental management programs, comprehensive knowledge about the area of operation, environmental education, and constant environmental participation are fundamental and would have been used in the Porto Alegre MR.

Returning to Castro's discussions (2005), he also highlights the case of the Recife MR in the state of Pernambuco, which belongs to the Pirapama RBC. It was founded in 1998 with 12 sub-basins and 7 municipalities. According to the author, this region has a different history in terms of participatory processes (Swyngedouw 2015). A characteristic of its management is that although it was formed based on a government initiative, it was preceded by studies on a partnership between Brazil and the United Kingdom, called the "*Pirapama Project*". The involvement of this project, as the funder and executive secretary of the first mandate of the RBC, led to difficulties for its members in terms of the actions/objectives of one and the other (RBC and Pirapama Project).

Frey (2017) determined that both MRs (Belo Horizonte and Recife) are places where the existence of several specific bodies for environmental management may facilitate interactions that lead to the development of solutions. However, civil society is still excluded from decision centers - a logic present in the proposals for administrative decentralization, according to Brannstrom et al (2004).

In the case of the Sorocaba Médio Tietê RBC, which belongs to the state of São Paulo, the aggregation strategy was to integrate the 34 participating municipalities by prioritizing structural projects. This created a minimum environment of interaction between the committee and the municipalities, with the implementation of Sewage Treatment Plant (STPs) projects. Comparatively, it is possible to identify a similar logic to the one in Rio das Velhas RBC. In this committee, the initial option was to elaborate on projects that focus on the creation of Municipal Sanitation Plans (MSP) and hydro-environmental projects for the recovery of springs, riverbeds, and degraded areas.

In both cases, the intention was to unite user groups and civil society via several minimally common projects; however, this strategy has exhausted public resources rather than significantly contributing to the management of the basin. Since there is a demand from several municipalities, within a Multi-Annual

Application Plan (MAP), resource management on several fronts may not yield the expected results for a joint improvement of the basin.

CONCLUSIONS

First, the common aspect of the reported cases is that the concept of water resource management used the water basin as a unit for planning institutional or structural actions, and RBCs were used as the main element for political or administrative actions (Abers 2017). This means that the management instruments have been advancing, even though at very different paces (because they are also different situations), in the search for consolidation of integration mechanisms, either in practice or in theory (Green 2006; Totti and Azevedo 2015).

However, these mechanisms (which in Brazil's case directly refer to the five instruments of water resource management: framework, master plan, information system, collection, and granting) are still very dependent on the political and institutional decision-making systems. It is interesting to note that these institutional challenges for management were already highlighted in some studies of the early 2000s (Luchini 2000; Theodoro 2002; Johnsson and Lopes 2003). In general, it was determined that integrated water resource management is still a policy under development within public policies, and its impacts are still secondary in relation to its inclusion in discussions on public agendas, and in the implementation of policies that go beyond infrastructure projects. The challenge is that the consolidation of participatory and integrated management of water resources does not simply depend on the sizes and/or geographic locations of the river basins in question, but rather on how these possible conflicts are managed for future collective consensus. The different political arrangements for each river basin, as well as the different formal and informal relationships involved, make this possible. This situation in Brazil can be a defining issue of the success or failure of a given public policy at the municipal or regional level - which confirms the importance of thinking about the federative issue, in terms of the success of integrated public policies. The capacity of the investigated RBCs to create and maintain alliances is fundamental for the exercise of improved structured water policies with greater capacity to remain in time (effectiveness) and space (decentralization). These formalized alliances create new environments of interaction, and facilitate institutional (re)arrangements that are inherent to the management of processes.

In this sense, RBCs and consortia can be better understood as spaces for the establishment of agreements on essentially public issues, rather than for the control of the State and the private sector by society in general (Abers et al 2009; Cunha and Theodoro 2015; Lisboa 2012). Consequently, the levels of influence by these basin organizations in decision-making processes will be proportional to their organizational levels, both formally and informally (Ansell and Gash 2007).

Furthermore, a comparatively identified fact is that both municipal consortia and basin committees promise institutional initiatives, but are not consolidated, and are sometimes distant in terms of concrete results, from their initial proposals - these proposals were about new collaborative practices of integrated and shared management. The strong presence of the State as one of the main players in decision-making processes, if not the major player, was also identified in the comparative analysis. This implies that the existing institutional structure in most states is centrally designed and that adjustments are ongoing in several instances. However, an increase in the structure of this institutional design can be identified by the gradual incorporation of economic and financial instruments (Moura and Araújo 2014) based on charging for multiple uses of water resources in Brazilian states (which also occurs in other countries, as seen in OECD, 2015 and Saritas et al 2015).

Finally, the concept of explaining the "*success*" or failure of a particular committee cannot be sought only "*from the outside in*," based on its exogenous relationships and influences, and how it was institutionally "constituted". Instead, it must be sought "*from the inside out*", based on the way it was socially and politically "built". Hence, it is possible to identify the performance limits and potentialities of the basin organizations that have or do not have legitimacy (and not just functionality) of action.

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