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Dupuits, Emilie; Bernal, Andrea

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SCALING-UP WATER COMMUNITY ORGANIZATIONS: THE ROLE OF INTER-COMMUNITIES NETWORKS IN MULTI-LEVEL WATER GOVERNANCE

Émilie Dupuits, Andrea Bernal

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Scaling-up water community organizations : the role of inter-communities networks in multi-level water governance

Émilie Dupuits
Andrea Bernal

Introduction

Water community organizations represent a relatively large part of the resource management in the Andean region, in a context of State weakness and social inequalities in rural or peri-urban areas. According to recent numbers, they are approximately 80.000 in Latin America and supply water services to more than 40 million of inhabitants (1). These community organizations are governed by local water users, who created their own rules and rights to manage drinking water and sanitation services, through key principles of self-management, collective work and local democracy (2). They represent one possible solution for the implementation of the human right to water, in a continent where 35 million of inhabitants lack an access to drinking water, and 104 million to sanitation (3).

However, they are facing new challenges at both national and global scales. At the national scale, with increasing pressures from States to control water resources for new development projects, as hydroelectricity or for the rising demand in cities. At the global scale, with new paradigms defined by international actors, such as the movement of privatization in the 1990s, which directly affect them back at the local scale (De Gouvello, Fournier, 2002). As a result, they are more and more included in multi-level processes and so, are encouraged to organize themselves at higher levels of governance through scaling-up strategies, into the form of inter-communities networks or public-community partnerships (Dedeurwaerdere, 2005 ; Boelens, 2008).

New forms of hybrid water governance have emerged recently in the region, mainly through legal reforms and new water law projects. This is the case in Ecuador where the new Constitution of 2008 recognizes officially community systems as full-fledge actors of national water governance, and raises the necessity to strengthen partnerships with public actors in mutual benefits and equal perspectives. However, the historical unequal distribution and control over water resources in the country, the mutual negative perceptions between governments and community actors, and the rising water conflicts are challenging the concrete implementation and sustainability of these partnerships. In Colombia, community water boards are also legally recognized as water providers in rural and urban areas, but the lack of regulation and public policies oriented to promote water management at the local scale have restrained their growth and empowerment.

Therefore, the comparison between these two countries is interesting to enlighten the multiple roles that inter-communities networks can play in two different legal and water governance contexts. Indeed, whereas the Ecuadorian case reveals a higher involvement and legal recognition of community actors through public-community partnerships, the Colombian case reveals a more contrasted collaboration of community organizations with public authorities. Two emblematic cases of inter-communities networks are the Network of Social and Community Organizations of Water Management of Ecuador (ROSCGAE), created in 2012, and the Association of Community Organizations providers of Water Public Services and Sanitation in Colombia (AQUACOL), created in 2001. They will constitute the basis for the comparative analysis of this paper for their similarities, as they are two decisive members of a higher transnational network of water community management (4), but also for their differences, as they are acting at different scales and are consequently adopting distinct strategies.

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In this contentious context, ROSCGAE and AQUACOL could play an important role to balance powers between governments and communities, and to make coherent since the communities themselves local rules and practices. Even so, the mutual impacts of these two multi-level processes have not been really studied yet, as they are mostly treated separately in the literature (Garcia-Lopez, 2013 ; Boelens, 2008). With the aim to fill this gap, the paper is organized around the following research question : to what extent inter-communities networks facilitate the implementation of equitable water partnerships with public authorities ? Our main hypothesis is that inter-communities networks, playing a role of mediator at multiple scales, contribute to balance powers between public actors and community organizations, and then to improve equity in water governance.

First, the paper will be based on a multi-disciplinary theoretical and conceptual framework on multi-level water governance (Brondizio *et alii*, 2009) and scaling-up processes (Swyngedouw, 2004). Then, based on a comparison between Ecuador and Colombia, the analysis will aim to understand the role of mediator played by inter-communities networks in the implementation of equitable partnerships with public actors in two different water governance contexts. Three potential roles to be analyzed are the reduction of inequities between community actors themselves, the facilitation of an organizational structure, and the influence on national decision-making arenas. The analysis rises from intensive fieldworks in these two countries, through semi-directives interviews with local organizations in rural areas, governments and NGOs, and direct observations at local, national and transnational scales (5).

Theoretical and conceptual framework : multi-level water governance and scaling-up processes

Two processes of multi-level water governance : public-community and inter-communities

In the 1990s, some authors tried to overcome the "tragedy of the commons" (Hardin, 1968) to highlight the possibilities to create self-organizing systems between individuals at the local scale, in order to manage resources in a sustainable way (Ostrom, 1990). They thus provided an explanation of the conditions for the emergence and perpetuation of these community systems at the local scale, as a third way between the State and the market, around key principles such as autonomy, horizontality or reciprocity (Ostrom, 1990). However, despite their number and important contribution to the improvement of basic services to the population, these organizations often remain invisible or little recognized beyond the local scale.

In addition, they are part of a wider context of global water governance, which have a significant impact back at the local scale. Indeed, it is important to mention both the fragmented nature of this global water governance, which has no formal international regime (Gupta et alii, 2008), and its conflictive aspect regarding the definition of norms of governance by multiple actors (commodification of water, technical vs. cultural conceptions…) (Conca, 2005). Contemporary changes in water governance include an intensification of water exploitation encouraged by national public policies, and a perception of local organizations as archaic or inefficient to deal with these new challenges (Young, 2006 ; Armitage, 2009 ; Moss, Newig, 2010).

Consequently, many authors point to the need for community systems to organize at other scales than the local one, in order to adapt to these changes and acquire a role in multi-level mechanisms of decision-making (Young *et alii*, 2006 ; Armitage, 2008). Community organizations are indeed inserted into multi-level processes that involve various changes in their modes of governance :

> "The key role of water in the livelihood systems of peasant and indigenous communities, and the threats that local user collectives face from state agents (with economic, political and military objectives), agro commercial enterprises, mining companies, hydro power stations and other powerful interest groups, require users to organize not just within their local, common property institutions but increasingly extend their objectives and organisations beyond local resource management practices and purposes" (Boelens, 2008, pp. 48-49).

The concept of "multi-level governance", widely used in the literature, highlights the possibility to create institutional arrangements at a vertical level, between geographic spaces and jurisdictions, and at a horizontal level, with actors creating networks between diverse institutions and sectors (Brondizio *et alii*, 2009 ; Andonova, Mitchell, 2010). These interlinks contribute to produce more coherent policies in a context of complex socio-environmental systems. Another concept of "polycentric

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governance" goes a little further highlighting the importance to guarantee autonomy to each of the institutions interconnected, to avoid the domination of more powerful actors (Ostrom, 2010). An example is "co-management" or "adaptative co-management", making reference to the establishment of partnerships between actors of different nature to avoid overlaps between institutions and between scales of action (Carlsson, Sandström, 2008 ; Armitage, 2008). Public-community partnerships in the context of water governance are a concrete demonstration of this type of co-management.

Another type of multi-level governance can be found in the case of inter-communities networks, which consist of going beyond local self-management limits (low technical and financial resources) through the establishment of partnerships between community organizations at sub-national and national scales (Dedeurwaerdere, 2005 ; Garcia-Lopez, 2013). Precisely in response to water governance changes in a context of globalization, various sub-national and national inter-communities networks have emerged to consolidate the efforts of community organizations to promote and strengthen their model of governance. The particularity of these "self-help networks" (6) relies on their self-management and membership, as they are exclusively composed of grassroots organizations, both providers and recipients of a collective service, and therefore directly affected by the issue they are defending.

However, these two processes of multi-level governance are mainly treated separately in the literature, whereas it seems interesting to analyze what could possibly be the interactions and mutual benefits between inter-communities networks and public-community partnerships. In fact, "while multi-level arrangements can provide some important benefits, they can also be very turbulent and can have many 'dysfunctionalities'" (Garcia-Lopez, 2013, p. 424).

Mutual impacts of scaling-up processes to foster equitable water governance

It is interesting in this part to develop the concept of "political rescaling", in order to better understand the possible impacts of inter-communities networks and public-community water partnerships in terms of power and equity. This concept, found in the field of geography, emphasizes the importance of socio-political dynamics at work in the rescaling processes of collective action (Swyngedouw, 1997 ; Dufour, Goyer, 2009). In that perspective, scale is meant as an interactional process under power relations between actors. Indeed, "the social power that can be mobilized is dependent on the scale or spatial level at which social actors can operate. Consequently, the success or effectiveness of social and political strategies for empowerment is related to the ways in which geographical scale is actively considered and mobilized in struggles for social, political, or economic resistance or change" (Swyngedouw, 2004, p. 26).

In fact, water governance is not only technical but the expression of power relations between different actors and confronting identities (Boelens, 2007). The concept of water governance implies looking at who possesses authority over resources, how decisions are made, what are the power relations between actors, and how conflicts are mediated. In that sense, equity is at the cornerstone of the concept of water governance (Boelens, 2007 ; Groenfeldt, Schmidt, 2013). It can be defined as "people's perception of a fair social relation between determined objects in a particular situation of exchange, between rights and duties, between benefits and charges, and between opportunities and disadvantages" (Boelens, 2007, p. 116).

As political rescaling implies a manipulation of scales, the notion of "mediator" is also helpful to understand how particular actors assume an active role of connection between different institutions and scales that had few links before (Latour, 2005). In that sense, inter-communities network can play this role of mediator between community organizations themselves, between communities and governments, or between various scales largely disconnected before : the local, regional, national and transnational ones.

Firstly, political rescaling aims at transforming unequal relations within communities themselves. In fact, they can suffer from different problems of power inequalities that threaten their sustainability and legitimacy. As Boelens mentions it, "the lack of critique in the defense of irrigation traditions and in the distribution of rights and benefits in peasant and indigenous irrigation denies the existence of power structures that can be characterized not only for maintaining internal injustices, and for being linked to external interests and unfair production relations in the whole society" (2007, p. 132).

Secondly, political rescaling implies a scale manipulation from community organizations to acquire more equity, to balance power or to demand more inclusion in decision-making arenas. This process aims at producing a change in governmental practices toward more horizontal and participa-

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tory governance (Gentes, 2008). Indeed, "they actively produce their own water action scales, water rights, and water identities, as tools in a struggle" (Boelens, 2008, p. 61). The creation of public-community partnerships at the local scale can help changing these unequal relations.

Finally, the creation of inter-communities networks can also be interpreted as a process of "jumping scales" (Smith, 1993 ; Swyngedouw, 2004), as they open an opportunity to enter national decision-making arenas and directly influence governments or other important actors at the national scale. This national influence can then eventually generate a positive impact back at the local scale on local governments engaged in public-community partnerships, generating a positive "boomerang" effect (Keck, Sikkink, 1999). An emblematic example of this "jumping scales" strategy is the anti-privatization movement in Bolivia in the 2000s, when community actors used international arenas as the UN to refuse privatization and claim their human right to water (De Gouvello, Fournier, 2002).

The concepts of multi-level governance and political rescaling presented above will serve to analyze water governance contexts in Ecuador and Colombia, and to understand the possible roles of inter-communities networks to foster equitable governance in new partnerships between communities, or between communities and public authorities.

The role of inter-communities networks in the implementation of equitable water partnerships : a comparison between Ecuador and Colombia

The role of ROSCGAE to facilitate public-community water partnerships in Ecuador

A brief context of water governance in Ecuador : a "hydric injustice"

According to a recent analysis, Ecuador could be considered as a privileged country regarding water resources. Indeed, it is classified within the category of countries "with little or any water scarcity" as it owns important water reserves (7). More precisely, the average amount per year and per inhabitant is of 22.500 m³, which is notably superior to the 1.000 m³/person/year considered as a minimum for decent living conditions by the World Health Organization (WHO). However, the country is facing a governance crisis, with increasing water uses for new issues such as urbanization, or productive activities as hydroelectricity. These rising uses increase possible conflicts, and water abundance hides a situation of inequities regarding water access and control.

A look at the social context of the country helps understanding the inequities in water access. In fact, when 92% of the urban inhabitants have access to drinking water and 80% to improved sanitation, they are respectively only 39% and 25% in the rural area (8). Moreover, the country is facing a situation of "hydric injustice" in water control, as a few people concentrates the rights over water resources. This reality is the result of public policies that have advantaged some strategic actors in a context of economic openness to foreign capital, as for example mining firms, hydroelectricity, agribusiness or flowers industries. In fact, whereas peasant and indigenous people who own community irrigation systems represent 86% of the users, they only access 22% of the total irrigated areas and 13% of water flow. On the contrary, the private sector, which represents only 1% of the total unities of farming production, concentrates 67% of water uses (9).

In this context of inequities, community water organizations play an important role in rural areas providing drinking water and sanitation services. They were created in the 1960s and 1970s in an era of nationalizations and rural populations' integration. According to the National Secretariat on Water (SENAGUA), there are around 6.832 *Juntas de agua potable y saneamiento* (JAAPs) and 4.798 irrigation organizations, providing water services to around 30% of the total population (10). These numbers reveal the social power of these community organizations, especially to respond to the challenges of human right to water and social equity. In addition, they represent a form of direct local democracy in which users self-manage their resources and take their own decisions.

This brief analysis of the Ecuadorian context of water governance reveals that private sectors possess an important power in public policies, whereas private water management is supposed to be prohibited in the actual Constitution. This represents a decisive challenge for the State, in charge to reduce power inequities and conflicts between actors in the water sector. In this context, community actors and local governments have an important role to play, especially with the new mandate of public-community partnerships designed in the Constitution.

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Public-community partnerships as a new model of water governance: between legal advances and practical barriers

Water governance in Ecuador is particularly interesting, because the country prohibited the private management of the resource in the recent Constitution of 2008. Instead, an innovative hybrid model is recognized, through public or community governance, and water is declared as a "fundamental and inalienable human right" (Art. 318). More precisely, the legal framework aims at promoting partnerships between local governments and community organizations for the provision of drinking water services and sanitation, in the case of a technical, administrative, environmental or economic weakness from part of the community to assume its responsibilities. Otherwise, it is mentioned that the law should not constitute a threat to this cultural and symbolical national patrimony.

Public-community water partnerships are presented in most of the national water forums as a positive solution to reduce the "hydric injustice" in the country (11). From one part, the government could bring important financial and technical resources to local organizations, and encourage a legalization process. This support appears essential in a context of important cultural changes in the rural areas, suffering from high rates of migration to urban areas, and more individualistic aspirations (Mcneish, Jacobsen, 2010). From another part, community organizations could compensate the government's difficulties to reach often isolated rural populations and reduce water inequalities. However, whereas public and community actors are supposed to have the same responsibilities and official recognition under the Constitution, many barriers remain to create these alliances concretely.

A first barrier is the contradictions of the new water law, officially approved in June 2014, which is the object of many political conflicts between the national government and communities (12). Indeed, after a first water protest launched by social organizations in 2012 to demand their right to a pre-legislative consultation, another protest emerged after the approval of the new law, to raise their concern around a possible re-privatization of water. Some major points of tension are the water rights redistribution, the increase of water services prices, or the absence of a clear legal framework for community organizations. Moreover, one key challenge is the persistence of private water management in some cities of the country, notably the biggest one Guayaquil, which could question the legitimacy of this new legal framework. Another challenge is the creation of collective water rights instead of individual water rights often recognized in state legal frameworks (Boelens, 2009).

A second barrier is the contradiction between official discourses and their concrete application, generating conflictive relations between governments and communities. A good example is the existing opposition between large-scale water projects from the State, around hydroelectricity, mining or oil exploitation, and the low investment in agriculture and conservation of water springs. These large-scale projects enter in contradiction with the official recognition of rights to the nature (13). There are also tensions between communities and public enterprises of water management, as the Metropolitan Drinking Water and Sanitation Company of Quito (EPMAPS). In fact, its main objective is the extension of water springs property rights to ensure to the capital city an efficient access to water, to the detriment of peasants' water access and control.

A last barrier is the historical relation of distrust and ignorance between the State and communities. In fact, communities' needs and actions often remain under recognized, because of the relative absence of governments in rural areas. Many interviewees mention this feeling of isolation and prejudices, at the basis of reluctance from local communities to engage in partnerships with public actors. On the contrary, the multiplicity of local organizations, with diverse capacities and rules, complicates the creation of alliances with public actors (14).

Therefore, it results paradoxical to see that public-community partnerships could both represent a solution to the problem of hydric inequity, and be affected by historical relations of power and inequities that have remained until today. In this context, inter-communities networks have an important role to play in resolving these tensions.

The role of ROSCGAE as a multi-level mediator to foster equitable partnerships

In 2012 was created the first national network bringing together a large part of the water community organizations of the country, called the Network of Social and Community Organizations of Water Management of Ecuador (ROSCGAE). It includes 37 sub-national organizations of 15 provinces, and so, plays an important role of representation and capacity-building. This part aims at analyzing three different roles of ROSCGAE as a mediator between communities at a local scale, between communi-

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ties and governments at a local/regional scale, and toward national government and decision-making arenas at a national/transnational scale.

Firstly, ROSCGAE can be analyzed through its role of mediator between water community organizations. One of its strategic objectives is to provide services and technical expertise to its members, through the opening of new capacity-building arenas, or the connection with key partners as NGOs or research institutes. The overall goal mentioned is to reduce possible internal conflicts between members or inside community organizations (15). One concrete example is the creation in 2014 of a website, called the "Water Info-center" (16), to facilitate information sharing and improve communication. Another example is the Latin-American Unified Program of capacity-building for leaders in water community management, created by different institutions from the whole continent, and financed by Avina Foundation and Care (17). In 2013, ROSCGAE was charged to directly implement the program in Ecuador, and 25 community leaders received the training in the province of Cañar. The existence of a national network as ROSCGAE is indeed crucial to manage important funds from the international cooperation, and then decide independently how to redistribute it to local organizations. The main partners of ROSCGAE are the Freshwater Action Network (FAN), Wash-Advocates, Avina Foundation, Ayuda en Accion, Protos, Care and UN-Habitat. Therefore, inter-communities networks contribute to balance inequities between community organizations, through the harmonization of local practices and capacities. One of the conclusions of a panel organized by ROSCGAE during the IV Latin American Conference of Community Water Management was precisely that the strengthening and harmonization of community organizations' rules and capacities are a pre-requisite for the entrance in partnerships with public actors.

Secondly, ROSCGAE can be analyzed through its role of mediator between communities and local governments. It is interesting to mention an emblematic case of public-community water partnership in Ecuador, which emerged well before the creation of ROSCGAE, in 2002: the Center of Support for the Rural Management of Drinking Water sector (CENAGRAP), in the province of Cañar. This center is a co-management structure of drinking water services between the municipality of Cañar and the community organizations (JAAPs) of the canton. It represents a success as there was an increasing number of community systems involved, from 14 at the creation to 90 in 2011, representing 7.550 users and a population of 37.785 inhabitants (18). A report mentions the key role of third parties as NGOs (19) in the success of these hybrid partnerships: "the idea to contribute to the construction of a collaborative structure, bringing actors who until the moment were functioning through confrontation, around a common issue, was possible by the existence of an actor playing the role of mediator and articulator" (20). This virtuous collaboration can be even analyzed as a springboard for the creation of ROSCGAE ten years later, now replacing the NGO Protos-Cedir in the function of mediator. It represents an important gain of autonomy from external and temporary actors as NGOs in the development of partnerships with public actors. Regarding the financial aspect, when at the beginning the NGO contributed more than half of the budget, from 2006, community organizations and the municipality started assuming all the costs by their own (21). However, the case of CENAGRAP is not representative of the overall situation in the country, where most of community organizations remain isolated or reluctant to partnerships with public authorities (22). Finally, it is interesting to mention the recent dynamic of internal structuration of ROSCGAE in three regional areas: north, center and south. This structuration follows the need to clarify the distinct roles that public actors and communities should assume at the local, regional and national scales (23). However, it also contributes to a complex multiplication of scales for the management of water services: jurisdictional (governmental institutions), geographical (basin committees), and social (community organizations).

Thirdly, ROSCGAE can be analyzed through its role of mediator toward national decision-making arenas. One of its strategic objectives is to be the official interlocutor between local community organizations and the national government. Following this objective, ROSCGAE multiplies its participation in different key arenas, as for example the National Forum of Hydric Resources. It represents an opportunity to make visible community organizations and their right to water, to diffuse good practices in public-community water partnerships and to campaign for new ones. Beyond the national scale, ROSCGAE is also the major representative of local community organizations in the continent. Indeed, it is member of a transnational network: the Confederation of Latin American Community Water and Sanitation Organizations (CLOCSAS). This network was created in 2011 during the second Latin-American Conference of Community Water Management in Peru (24).

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Since then, ROSCGAE is an active participant of the network's annual meetings, and is part of its general assembly. One of these annual meetings was held in Ecuador in 2012 and was the opportunity to bring together different types of actors and to impact political decisions. In the same dynamic, ROSCGAE co-organized in August 2014 an Inter-American Congress on Rural Water Management, to be held in Cuenca, Ecuador. The increasing participation of ROSCGAE in regional events can be analyzed as a "jumping scales" strategy to improve political incidence on national and local governments.

In conclusion, ROSCGAE appears as a decisive mediator in three different scales: ahead of public-community partnerships, by reducing internal inequities among its members, during the development of these partnerships, by playing the role of a crucial organizational structure, and up front of these partnerships, by defending water community organizations' interests in national governmental arenas and in the continent. It is interesting now to develop the case of AQUACOL in Colombia, as to nuance the analysis.

The role of AQUACOL to lead the wave of inter-communities networks in Colombia

A brief context of water governance in Colombia

Colombia is ranked as one of the countries with the largest offer of fresh and surface water in the world, ten times the global average per country and three times the Latin-American average. With an average amount of fresh water per year and per inhabitant of 34.000 m^3, the offer is scarce in the Andean mountains, where the population is concentrated. The region of Magdalena/Cauca, concentrating just 13.2% of fresh water offer, has more than 63% of the total population (25). In addition, the balance of surface water offer is under risk because of the increasing water demand for agro-industrial, mining and urban uses. Current economic activities in rural areas of Colombia jeopardize the delicate balance of tropical ecosystems, and as a consequence, are generating large social conflicts among poor population. Gold and coal mining cause the largest environmental impacts, under a lack of law enforcement by national authorities to control environmental damages. In fact, informal and illegal mining increases risks over hydric resources, by reducing drinking water offer and polluting it (26).

The access to water and sanitation has not reached constitutional status in Colombia yet. Nevertheless, water and sanitation rights are protected by connection with the fundamental rights of life and health. In case of enforcement, it is needed to prove infringement to these rights prior to claim for effective access to drinking water and sanitation. A law settled in this regard, has facilitated the just demand of the communities affected by the suspension of polluting activities, the obligation of building infrastructure and the requirement of effective laws enforcement that protect individual and collective water and sanitation rights. In this context, access to water reached 73% of people, and sanitation coverage represents 69% in rural areas, including improved solutions. Moreover, 48.6% of rural population consumed water with high-risk quality in 2012 (27).

Community Water Boards (CWB) are allowed to provide public services, by constitutional right. This capacity is regulated by the public utilities law (Law 142, 1994). Community Water Boards have to accomplish the same requirements as large-scale providers, surpassing their management and operative capabilities. They have to obtain environmental licenses, compete with private and public institutions in purchases, register themselves for taxation, report financial and non-financial data for public accountability, keep records and control drinking water quality among other request to attend, in order to accomplish the water regime in the same conditions that large providers (Chaves, García, 2009). This unequal treatment to CWB has caused two different reactions. From one part, some grassroots organizations seek to remain invisible for authorities, delaying their formalization until they are enforced by authorities. From another part, other CWB seek to formalize and accomplish legal requirements, getting external support and associating with other CWB in second-level organizations to protect themselves from eventual abuses, and improve their performance.

Despite the contradictions on the current regulation and public policies around community water management in Colombia, grassroots organizations and CWB continue flourishing in rural areas, and today they supply water to 25% of the inhabitants, representing around 11 million people. According to the National Sanitary Inventory of 2001, 11.552 communities were identified in that year, providing water access along the country (28). This number may have increase during the last decade, as a result of the lack of investment and support from the local and national governments in rural areas, a situation that has encouraged self-supply and collective action. In this scenario, the National Planning department launched a public

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policy to formulate a national strategy to access water and sanitation in rural areas and add financial resources to reduce the urban-rural gap (29).

The raise of a new model of water governance: Second-level Associations of Community Water Boards with regional influence

A grassroots community can reach legal status to provide water services in Colombia, once they register themselves in the Chamber of Commerce, the Superintendence of Public Utilities and the National Direction of Tax and Customs. The complex and expensive requirements to start operations and the liabilities related to maintain that status are the main causes that complicate formalization of CWB in Colombia. However, there are different legal statuses for free association. The "Juntas de Acción Comunal" (JAC), or community action boards, are authorized partnerships among neighbors to manage collective interests and assets. Some of these boards manage water provision on an informal basis. Other type of community organizations are the "Asociaciones de Usuarios", or users associations, as a valid form to assume the delivery of public services, that often operate where other providers have failed. Another type of organizations are the "Administraciones Públicas Cooperativas" (APC), a cooperative approach which allows participation of public institutions as municipalities, departments, and the State, in partnership with the communities (Carrasco, 2011), under a legal status similar to the public-community partnerships observed in Ecuador.

All types of grassroots organizations in Colombia (JAC, user associations, APC, and non-organized communities) are increasing their participation in different second-level associations with regional influence. Some of these organizations, such as AMAC (30), ADACA (31), AQUACOL (32), COOPESAN (33), FACORIS (34), or FECOSER (35), are ruled by their own statutes and have reached legal status (36). After successive attempts to work together in a national network, these second-level associations created the National Confederation of Rural Water Supplies in February 2015 (37), reaching significant influence toward national governmental authorities. These associations have been recognized as an alternative to provide technical support and empowerment at the community level in the framework of the national public policy to access water and sanitation. However, not all the network's members are equal in power and capacities, leading to an interesting integration process, as it will be developed further.

AQUACOL is a particularly powerful member among these inter-communities networks, partnering 33 CWB with direct impact over 70.000 inhabitants located in the departments (38) of Valle del Cauca, Cauca, Caldas, Risaralda and Nariño, located in the south of Colombia. AQUACOL emerged in 2001 from a community initiative to share experiences and solutions in providing water at a local scale. Indeed, some community leaders knew about the existence of community water boards associations in Honduras and the United States of America, organized to attend common needs of technical assistance and provide mutual support, and then aspired to reply that initiative. AQUACOL is formally recognized as an association by the Colombian government, and its main decision-making body is the "Asamblea General", or annual meeting of members. The network is represented by its Executive Director, who shares management responsibilities with the Board of Directors. Local operations are deployed by delegates in each department. Public institutions or other types of organizations cannot become members. AQUACOL collects a voluntary fee from its members for basic operations, but some members also contribute paying for some expenses (Rojas *et alii*, 2011).

AQUACOL provides advice and shares information with any grassroots organization, even if they are members of the network or not. The Instituto Cinara, a research center of the Universidad del Valle, is collaborating to the initiative of the "Centros Comunitarios de Aprendizaje" (CCA), or Community Learning Centers, which are spaces dedicated to enhance knowledge and support among community based boards, starting from the experiences and strengths of successful community water boards, to promote an horizontal learning model (Chaves, Garcia, 2009). AQUACOL works in partnerships and joint projects with public and private institutions, and NGOs. The nexus with the Instituto CINARA is informal, but this institution is collaborating widely on learning initiatives as CCA.

The role of AQUACOL as an intermediate network of community water organizations

In this part, three main roles of AQUACOL will be analyzed: a contrasted role of mediator between communities at the local scale, between communities and local governments by legitimating second-level associations, and toward national and transnational decision-making arenas by facilitating a direct participation in the water sector.

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Firstly, AQUACOL has been largely benefitted by the interest created among academia and public institutions, which have spread its work and influence in community water management. Through many publications and its presence in national and international scenarios, the outstanding advances of AQUACOL were largely underlined, in comparison with other second-level organizations. As a result, the network has reached a well-recognized position among the water sector in Colombia, beyond its regional presence. Nevertheless, some others associations are reluctant to its leadership, because they do not feel well-represented, and criticize its success attributing it to the external support received. These tensions have created a negative environment to promote a national network, because the other regional associations are afraid of being absorbed by AQUACOL, rather than reinforcing their local initiative. Despite these limitations, AQUACOL nowadays leads the grassroots contributions to the National Strategy to Access Water in Rural Areas due to its experience interacting with different levels of governance, as was demonstrated in August 2011 during a national meeting where AQUACOL wrapped up the demands of more than 500 CWB to the national government (39).

Secondly, AQUACOL has contributed to the rise of second-level associations, as a viable alternative to improve water services in rural areas. In a comparison study between different post-construction support models, AQUACOL has been recognized as a very efficient grassroots initiative to scale-up legal accomplishment and governance. The study informs that the impact of post-construction support over CWB's performance and levels of services also depends on the size of each system and its own capabilities. However, in average, all systems attended by AQUACOL have improved their technical and managerial skills with remarkable results in water quality management, using a collaborative network among members (Smits *et alii*, 2012). Apart from these data, AQUACOL's financial sustainability remains unexplored, because some expenses are covered by external support and projects developed by municipalities, International Organizations as UNICEF or UNDP, NGOs or individual support, without a traceable assessment.

Thirdly, AQUACOL is an active member of the transnational network CLOCSAS since its creation in 2011, and its Executive Director is also the secretary of CLOCSAS since 2013. CLOCSAS' statutes allow inter-communities networks with local influence to participate, where the national network does not exist yet, as it is the case for Colombia. At the national scale, AQUACOL collaborates with the government of Colombia, in developing regulatory frameworks and management solutions adapted to small-scale providers and community water boards. AQUACOL signed an agreement with the Superintendence of Public Utilities, to improve the "SUI Rural", the information system for water and sanitation in Rural Areas, and collaborated to review the regulatory framework for surveillance of small-scale water providers. The network also developed a software for accounting needs of community water boards, which is being implemented on a pilot project among its members. These initiatives have been shared with the Ministry of Household, attracting interest in AQUACOL, as a case study to guide future development of special regulation for community water management. These experiences reveal the existence of a "jumping scales" strategy implemented by AQUACOL. Indeed, through its participation in the transnational network, CLOCSAS, and in key national decision-making arenas in the water sector, AQUACOL is contributing to improve the local capacities of its member community water boards.

Despite of the critics around the growing influence of AQUACOL in Colombia, this case is paramount to promote an enabling environment for community water management as a public policy, through second-level associations. A comparative study of alternatives to support access to water and sanitation in rural areas, and their relative success or failure, stood out the positive impact of AQUACOL among its members: "the systems accompanied by the Programa Cultura Empresarial (40) and Aquacol have reached acceptable performance levels, due to the emphasis on management and internal governance of small-scale providers, and the production of drinking water quality" (Smits *et alii*, 2012, p. 103).

Discussion and conclusion

The main objective of this paper was to understand to what extent inter-communities networks facilitate the implementation of equitable water partnerships between communities and with public authorities. Our main hypothesis stated that inter-communities networks, playing a role of mediator at multiple scales, contribute to balance powers between public actors and community organizations, and then to improve equity in water governance.

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The comparative analysis between Ecuador and Colombia reveals the existence of different steps in the legal and practical recognition of water community management and partnerships with public authorities. Indeed, in the case of Ecuador, community organizations are recognized in the Constitution as a full-fledge actor in the implementation of the human right to water, and partnerships with public actors are highly encouraged to help these local communities assuming their responsibilities. Distinctively, in the case of Colombia, community water boards are recognized under the law, but public policies are not fully oriented to the support of these local communities, and the human right to water is not yet a constitutional right. However, despite a stronger legal recognition in Ecuador, it remains a high level of imprecision about what concrete form should take these public-community partnerships, and still a few of these alliances are fully implemented.

These two different legal and water governance contexts led to distinct developments and roles of inter-communities networks in the two countries. From one part, a national inter-communities network was created in Ecuador in 2012, the ROSCGAE, with the main objective to facilitate the development of public-community partnerships as an official mandate, through the reduction of inequities between local communities, in terms of technical, financial and human capacities, and between communities and governments, in terms of access to and control of water resources. From another part, the Colombian case reveals a distinct experience as was created there in 2001 a sub-national network in the region of Cauca, AQUACOL, much more focused on the direct provision of water services to local users, and on the strengthening of local communities to assume their responsibilities under a relative disengagement of the State.

Moreover, the comparison reveals the existence of relatively differentiated roles of mediators for the Ecuadorian and Colombian inter-communities networks, mainly determined by the scale of action. Indeed, in the case of Ecuador, ROSCGAE is acting horizontally both at an inter-communities level and at a public-community level, and vertically at the local, regional, national and transnational scales. This allows a diversification of "scaling-up" or "scaling-down" strategies to improve water community management and visibility in the country. However, ROSCGAE's representativeness can be nuanced as the network highly relies on good experiences from the southern sierra, and does not include yet a large part of the remaining community organizations of the country. On the contrary, in the case of Colombia, some disconnections remain between actors and scales, which can eventually complicate the enlargement of community water boards in the country. In fact, although AQUACOL is highly active and recognized at the national and transnational scales, it faces more barriers from the local scale in encouraging the consolidation of a national inter-communities network as in the model of ROSCGAE. Moreover, the high fragmentation of the national water governance context complicates the emergence of official partnerships with public authorities.

In both cases, the financial sustainability of this type of community-based networks represents a major concern for the future. Although the network's representatives provide a voluntary work, the financial support from international cooperation is still crucial. As an example, in 2013, Avina Foundation collaborating with local partners, contributed to improve water access to 420 thousand people living in rural communities and water quality to 142 thousand people. Beyond financing only infrastructure, it supported capacity-building programs to 587 community leaders and 221 OCSAS in 8 countries representing an amount of 2.7 million dollars (41). However, some pressing issues to maintain community networks remain, such as the financial cost of the annual Latin-American meeting of community water management and the demand to obtain national community leaders' remuneration, inexistent at the moment. Financial autonomy could be obtained through members' subscription to the water services and governments' subventions, highlighting again the necessity to institutionalize community water management in legislative frameworks and concrete practices.

Finally, this analysis enlightens the complex articulation between the multiplicity of scales and actors inherent to water governance. It demonstrates that local community actors have the capacity to link different levels through their network action, and to articulate different processes of multi-level water governance, especially with public authorities. To go further on the reflection, it is interesting to note through this comparison the important differences between CLOCSAS' members at the transnational scale, in terms of scales of action, objectives and types of relation with public authorities. It questions the possibility for this Latin-American inter-communities network to create a common agenda and identity, while integrating the important diversity of national and sub-national community organizations in the continent.

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Émilie Dupuits is currently a PhD candidate and a teaching assistant at the Global Studies Institute – Department of Political Sciences and International Relations, in the University of Geneva. She is also member of the research group "Politics, Environment and Territories" in partnership with the Environmental Sciences Institute. Her research interests focus on the governance of the commons – such as water and forests – in Latin America, and on transnational networks from the civil society. Since February 2013 she pursues her thesis project entitled "Transforming norms of governance for the commons at the transnational scale: community organizations' networked action in Latin America".
Emilie.Dupuits@unige.ch

Andrea Bernal is a PhD on Management Sciences – Superior School of Commerce and Management, Instituto Politécnico Nacional, México, graduated in June 2014, with a research project entitled "Community-water management models in Colombia". Some of her research advances have been published in peer-reviewed magazines in Latin-America. She has wide experience as an international consultant on water and sanitation in rural areas, collaborating with the Inter-American Development Bank, the World Wildlife Fund, Avina and the Swiss Agency for Cooperation and Development among other organizations.
artenoble@hotmail.com

Notes

(1) Avina Foundation, 2011, *Models of Democratic Governance for Water Access in Latin America*, August

(2) Water community organizations can be defined as: "social structures created by neighbor groups, in peri-urban and rural areas, where generally public or private services are not provided. Through statutes of self-management, open, easy and democratic leaders' elections, and common work, they direct their effort to establish a system of harnessing, treatment and payment for the water services, and also most of the time for sanitation. Their leaders normally don't receive remuneration for their work, because it is made by vocation and social commitment" (CLOCSAS, "La Asociatividad Como Estrategia en la Gestión Comunitaria del Agua en Latinoamérica", Agosto 2012, p. 6).

(3) UN, "Millennium Development Goals", 2013 Report (2011 data)

(4) The Confederation of Latin American Community Water and Sanitation Organizations (CLOCSAS).

(5) Part of the empirical data of this paper is drawn from a master thesis realized in 2012 on the subject of "public-community alliances for an equitable water governance in Ecuador", based on semi-directives interviews with rural actors, local governments and national NGOs, and from direct observations of the VII National Hydric Resources Forum in Quito in 7-8 of June 2012, and of the National Meeting on "Integrated Basins Management, Solutions and new Stakes" in 29-30 of March 2012, in Cuenca. The data was complemented by a direct observation of the IV Latin American Conference of Community Water Management, in Paraguay, between 30 of July and 1st of August 2013, semi-directives interviews with representatives of national and sub-national networks of community water organizations in the region, and a direct observation of the VIII National Hydric Resources Forum in Quito in 26-27 of June 2014. In the case of AQUACOL, Colombia, there are some studies from the managerial perspective, but the political view has been dismissed. The reviewed sources have been enriched with interviews and visits to the region between November 2013 and May 2014.

(6) Concept based on the Colloquium Proceedings of the International Meeting of Rambouillet in 23-24-25 of March 2009, "The Access of Self-Help Networks to the International Arena".

(7) International Water Management Institute, 2007, *Water for Food, Water for Life: A Comprehensive Assessment of Water Management*, London: Earthscan

(8) Secretaria National de Planificacion y Desarollo (SENPLADES), 2014, *Aqua Potable y al cantarillado para eradicar la pobriza en Ecuador,* July

(9) Bustamante R., 2010, *Lo colectivo y el agua: entre los derechos y las practicas*, Lima: Instituto de Estudios Peruanos

(10) Numbers obtained during the VII National Hydric Resources Forum, Quito, 7-8 of June 2012.

(11) For example during the VII National Hydric Resources Forum in Quito, in 7-8 of June 2012, or during the IV Latin American Conference of Community Water Management, in Paraguay, between 30 of July and 1st of August 2013.

(12) Information obtained during the VIII National Hydric Resources Forum, Quito, 26-27 of June 2014.

(13) Balarezo Vinueza D., Lopez Pardo C., 2012, *Nuestro derecho al agua. El derecho humano al agua y la justicia ambiental en Ecuador*, Canadá: Proyecto Planeta Azul, Marzo

(14) Direct observation during the VII National Hydric Resources Forum in Quito, 7-8 of June 2012.

(15) ROSCGAE Strategic Planning for 2020.

(16) URL: http://roscgae.blogspot.ch/ (consulté le 02 octobre 2014)

(17) URL: http://www.avina.net/esp/nota/modulos/ (consulté le 02 octobre 2014)

(18) Garcia D., Solis H., 2011, *Yakukamay. Alianza público-comunitaria: un modelo de gestión del agua. La experiencia desde el CENAGRAP*, Cañar: Cenagrap/Protos-Cedir

(19) In this case, the third party was a consortium of two NGOs: Protos, a Belgian NGO specialized on water rights issues, and Cedir, the Center of Rural Development and Research, a local NGO.

(20) Garcia D., Solis H., 2011, *Yakukamay. Alianza público-comunitaria: un modelo de gestión del agua. La experiencia desde el CENAGRAP*, Cañar: Cenagrap/Protos-Cedir

(21) *Idem*

(22) Information obtained through interviews and direct

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observation during the VIII National Hydric Resources Forum, Quito, 26-27 of June 2014.

(23) These roles range from construction and maintenance of water infrastructure, administration, tariffs definition and management, quality and social control.

(24) Agreement made between 35 representatives of community water organizations of the 14 countries represented: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Chile, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, and El Salvador.

(25) Ministerio de Ambiente, Vivienda y Desarrollo Territorial (MAVDT), 2010, *Política Nacional para la Gestión Integral del Recurso Hídrico*, Bogotá, Colombia

(26) Contraloría General de la República (CGR), *Estado de los Recursos Naturales y del Ambiente*, 2011 – 2012

(27) Departamento Nacional de Planeación. Conpes 3810 de 2014. Política para el suministro de agua potable y saneamiento básico en la zona rural.

(28) Ministerio de Ambiente, Vivienda y Desarrollo Territorial (MAVDT), 2005, *Lineamientos de Política de Agua Potable y Saneamiento Básico para las Zonas Rurales de Colombia*, Bogotá, Colombia

(29) Departamento Nacional de Planeación. Conpes 3810 de 2014. Política para el suministro de agua potable y saneamiento básico en la zona rural.

(30) AMAC: Asociación Municipal de Acueductos de Dosquebradas, Risaralda, Colombia

(31) ADACA: Asociación Departamental de Acueductos Comunitarios de Antioquia, Colombia

(32) AQUACOL: Asociación de Acueductos Comunitarios de Colombia

(33) COOPESAN: Administración Pública Cooperativa de Organizaciones Prestadores de Servicios de Saneamiento Básico y Agua Potable del Norte del Cauca, Colombia

(34) FACORIS: Federación de Acueductos de Risaralda, Colombia

(35) FECOSER: Federación de Organizaciones Comunitarias Prestadoras de los Servicios Públicos Domiciliarios Rurales del Valle del Cauca

(36) Avina Foundation Colombia sponsored a consultancy project to identify second-level associations of Community Water Boards in 2012.

(37) Information obtained through direct observation during the Workshop of Rural Water Supplies and small scale providers, Bogotá, Colombia, 27-28 of February 2015.

(38) The departments are the first level of administrative division in Colombia. It could be compared with the provinces observed in other countries. Colombia has 32 departments. The municipalities are the second level, with 1.102 of them along the country. Municipalities have an urban center. The remaining area is considered rural.

(39) Information obtained through direct observation during the I International Meeting of Rural Water Suppliers, Armenia, Colombia, 25-26 of August 2014.

(40) The "Programa Cultura Empresarial" is a capacity development program led by the Ministry of Household in Colombia since 2005.

(41) Avina Foundation annual report, "Water Access", 2013, [Online]
URL: http://www.informeavina2013.org/oportunidades-agua.html (consulté le 28 janvier 2015)

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