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Chapter 12

The role of stakeholders in water management

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THE ROLE OF STAKEHOLDERS IN WATER MANAGEMENT

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Highlights

- The abundance of still largely unexploited natural resources and the sustained growth pattern of many countries in the Latin America and Caribbean (LAC) region contribute to the creation of situations where different needs, interests and understanding of the concept of socio-economic development have led to tensions and conflicts.
- Poor legal compliance, insufficient legal instruments and lack of funds are often at the root of significant environmental damage and conflicts in the LAC countries. Disputes are mainly related to the construction and operation of water works, water diversion, industrial and mining pollution and the privatization of the water supply and sanitation coverage.
- Advocacy networks play a key role in empowering and giving national and international visibility to the local population directly affected by environmental degradation or social injustice.
- During the past few decades the demands from civil society organizations in LAC for a larger participation in decision-making processes supported the inclusion of participatory practices in the new institutional arrangement and the creation of new spaces for negotiation such as river basin committees and water councils.
- Formal participation is uneven in terms of level of involvement of stakeholders and is mainly limited to water users (usually the ones representing large scale economic activities). Other interests not associated to water rights or the views of indigenous population are often underrepresented in formal forums and social activism still prevails as the main means to voice their demands.
- In LAC, besides lobbying and direct access to the highest state leaderships, the private sector has two new strategies to influence the decision-making processes: as one of the main stakeholders in participatory formal institutions and through their partnership with international NGOs and development agencies in defining new rules for water certification and water accounting, that can lead to new water policies in the future.
- Most LAC countries have passed information transparency laws, which apply also to water-related public information. The actual implementation of the legal obligations to information disclosure is fostered by benchmarking initiatives and watchdog studies promoted by civil society and international organizations, mainly for the water and sanitation sector.

12.1 Stakeholders organizations and their spaces for negotiation

Latin America and the Caribbean (LAC) is a region well known for its social and economic contrasts. High levels of poverty and inequality coexist with high rates of growth and raw material exploitation. The lush nature, combined with large expanses of land also indicates a high concentration of natural resources. Development practices and economic growth lead to tensions between different social groups and actors about how this region should be. In this context, water and the struggles to access and control it have contributed to the construction of the political and natural landscape of the region.

Water access is disputed by different sectors of society and activities throughout the whole region. Tensions come from energy, mining, irrigation, urban demands and their impact over livelihoods of local and traditional populations as well as the environment. On the other hand, water pollution and the access to domestic water supply, particularly the privatization of water services, have become major sources of conflict in the last two decades.

Such tensions represent the challenge of promoting multiple water uses whilst guaranteeing its universal access as part of the strategy to ensure water security in this region. In order to deal with this, stakeholders¹ – ranging from economic agents to indigenous organizations – have been using and developing different strategies to express their agendas as well as to influence the decision-making processes and water governance in LAC. Such strategies include public demonstrations and campaigns, lobbying, participation on councils and committees, the proposal of new regulations, denouncing conflicts to the courts and asking for transparency on how decisions are made. These interactions are happening in different spaces of negotiation and discussion, involving different actors and networks, and in different moments.

Usually, when discussing civil society organizations and their participation in water management, the analyses focus mainly on practices of public participation that consider formal participatory institutions as the main venues for negotiation. However, the stakeholders' repertoire goes beyond such negotiation spaces and reflects the understanding of social participation as the direct involvement of an array of people in decision-making and implementation of water policy or management through the opportunity to express their voices and articulate their arguments in public forums (Berry and Mollard, 2010).

Even though nowadays many of the LAC countries have undergone water reforms (Chapter 11) in which stakeholders' participation has become part of the institutional arrangement, activism and public demonstrations still take place. Such strategy unveils

¹ Stakeholders are understood as individuals, groups or institutions that are concerned with, or have an interest in the water resources and their management. Even though public sector agencies are also stakeholders, in this chapter, the focus will be on private sector organizations, NGOs and social actors.

how water reform, by itself, was not able to decrease water access inequalities through the creation of new spaces for negotiation. Actually, in many cases, reforms have worsened the situation as elites and corporations have taken advantage of government interventions (Boelens et al., 2011). As a consequence, some social actors believe that there are moments in which public demonstrations are more effective (relative to formal participation) in bringing a specific claim to the attention of the general public or to compel the state to include specific topics on the official agenda (Empinotti, 2007). On the other hand, in some cases civil society organizations have been withdrawing from water councils and committees, in which their representation is outnumbered and decide to focus their actions on other strategies such as direct lobbying, unilateral partnerships with the government and public demonstrations (Warner, 2005; Empinotti, 2011).

At the same time, the importance of the private sector – mainly farming, food traders and manufacturing – in the management of water has been unveiled as strategic in order to guarantee water and food security (Allan, 2013). Because of this, initiatives such as water certification and indicators of water efficiency have become new channels to promote alliances among manufactures, food producers, NGOs and development agencies that can lead to new agreements for regulated water use in the production sector (Pegram et al., 2009; Empinotti, 2012; Empinotti and Jacobi, 2013). Finally, the approval of transparency laws throughout the region, pushing for accountability and corruption control, has become an opportunity for civil society organizations to ask for information and to control the government's expenditure on infrastructure projects and plans to increase water availability in LAC.

Such considerations show that the analysis of how stakeholders influence water management should go beyond the understandings proposed by the concept of participatory citizenship and multi-stakeholders platforms, and also include other spaces impacting decision-making processes such as the courts, non-state market-driven governance systems and the increased attention to transparency and access to information.

Acknowledging the importance of different channels of expression and negotiation beside councils and committees, this chapter explores the different strategies that stakeholders apply in order to influence water governance in the LAC region, with a special focus on Brazil, Chile, Costa Rica, Mexico and Peru. The chapter starts describing the main sources of tensions regarding water in the region and the reasons behind it. Then it looks at how disputes and the disregard for traditional community-based water management practices lead to activism and advocacy that represent informal but important spaces of participation for civil society organizations, such as NGOs, social movements and networks. It also discusses whether courts are (or are not) spaces in which stakeholders can voice their claims. Following that discussion the chapter analyses how formal participation is taking place in these countries. In this case, stakeholders are members of the new spaces of negotiation such as river basin committees and water councils. Another space that has been increasing in relevance in the last few years is related to water use certification and water indicators, transforming the private sector into a key player in water management. Finally, the last section will present how accountability practices and transparency laws are becoming tools that stakeholders can use to influence how water is managed in LAC countries.

12.2 Tensions over water and social activism in LAC

In LAC, the origins of tensions over water are complex and diverse (Arrojo 2005; Arrojo, 2010; Oswald, 2011; Aguariosypueblos.org., 2013). They are generally rooted in different understandings of water allocation, national and regional priorities, contrasting views of development and environmental care, cultural and economic interests, and livelihood defence (Larrain and Schaeffer, 2010). They often originate from the development of economic activities and at times from the institutional reforms promoted to facilitate said economic development (Boelens et al., 2011). Thus, the regional growth supported mainly by commodities exports (Sinnott et al., 2011; ECLAC, 2013) is likely to accentuate tensions associated with dam construction, water diversions, urbanization and mining taking place at domestic and transboundary scales (Table 12.1).

ISSUE	CONFLICT TRIGGER	STAKEHOLDERS INVOLVED			
HYDROPOWER PLANTS AND DAMS	Loss of territory and livelihoods as a consequence of dam construction and operation	Rural works, indigenous populations, state, private sector, NGOs, social movements			
WATER DIVERSION IRRIGATION	Taking water from regions under water stress, prioritizing urban over rural areas and agribusiness activities.	Rural workers, small farmers, indigenous people, NGOs, unions, associations, church, state, agribusiness, municipalities.			
	Farmers do not respect previous formal and/or informal agreements with regard the amount of water they should take from the water body.	Small farmers, state, agribusiness, indiaenaus populations, social			
	Priority of agro-export activities over small farmers and indigenous farming practices.	movements.			
MINING	Impact on water resources quality and availability for other economic activities and domestic supply; non-compliance with legislation, destruction of natural landscape (e.g. Deforestation)	Indigenous people, small farmers, fishermen, mining companies, water supply companies, NGOs, local and regional government.			
URBANIZATION	Water pollution jeopardizes domestic water supply even in areas that naturally are water abundant.	State, municipalities, NGOs.			
CONCESSIONS	Privatization of drinking water, wastewater treatment plants with inadequate service and high prices.	Multinational enterprises, local and national governments, international tribunals (WTOCV).			

Table 12.1 Features of main water conflicts in LAC

Source: own elaboration.

In LAC, approximately 60% of territory is included in transboundary basins: the Amazon basin alone includes eight countries with more than 8,000km of shared borders (Rebagliati, 2004). Since each country has sovereignty over its water bodies, yet the river basin could be shared, often water uses impact neighbouring countries. In this context, the main reasons for tension are related to flow control, overuse of water, pollution from

upstream countries and the impact of water uses over traditional livelihoods and the environment. Tensions between countries over water often find a venue to be managed in treaties and international agreements. As a matter of fact, overall only around 15% of the South American transboundary population and area is not covered by at least one treaty or an international River Basin Organization (De Stefano et al., 2012), and interestingly relationships over South American shared waters are far less confrontational than in other regions of the world (Wolf et al., 2003; Yoffe et al., 2003; De Stefano et al., 2010; Biswas, 2011). In some cases, multi- and unilateral agreements and financial support have contributed to managing some of the tensions in the region as, for instance, in the Colorado and Bravo rivers (USA and Mexico). In other cases, such as in the Lempa River (Guatemala, Honduras and El Salvador) and the Orinoco basin (Colombia, Venezuela and Brazil) tensions over water eventually led to the creation of cooperation and integration plans for the shared basins.

Conflicts over water can be triggered by environmental consequences of water uses or by their social implications and, even if a certain dispute can be focused only on one of those two factors, they cannot be taken apart (Castro, 2008). For instance, the increase in agro-export activities in LAC has pushed for intensive land use and the expansion of irrigation practices which increased pressure on water availability and ecosystems (Castro, 2008; Boelens et al., 2011). At the same time, changes in farming practices have often led to the loss of traditional knowledge and the disruption of livelihoods, showing that the changes in water use contribute to displace small and indigenous farmers that are replaced by the agro-export model (Boelens et al., 2011). Similarly, the construction of water infrastructure to meet the increasing needs for energy and water in LAC impacts rivers' ecosystems and, at the same time, contributes to the loss of territories and traditional livelihoods, pushing population to urban areas and disrupting local economies (Zhouri and Oliveira, 2007; Oliver-Smith, 2009; Boelens et al., 2011). In mining, the combination of highly polluting production processes with inadequate environmental legislation (and/ or disrespect of it) has had a negative impact on soil, biodiversity, water, and aquifers in almost all countries of LAC (Flota et al., 2012) and is at the root of intense conflicts throughout the region (Figure 12.1). Destruction of upstream ecosystems providing crucial services to urban supply systems and pollution of aquifers are common in LAC metropolitan areas (e.g. Mexico City, São Paulo, Rio de Janeiro, and Lima) and directly affect the capacity of water utilities to provide safe water to households.

Water services privatization has become one of the main sources for conflict in LAC during the last two decades. The rapid increase of urban populations combined with the lack of sufficient funds for the creation and maintenance of public supply services often pushed local and federal governments to grant water supply and sewage concessions to the private sector. Private companies or concessionaries are often reluctant to expand the water supply network to poor suburbs and shanty towns, where the recovery of investments via water tariffs is unviable and governmental subsidies are required. The lack of effective supervising bodies, however, often contributes to the establishment of abusive practices, like unaffordable prices or non-compliance of water supply standards. Although these

practices can occur also in case of public providers, they have been especially obvious in some private water concessions in the region, obliging some governments to cancel concessions due to public opposition.



Figure 12.1 Location and number of mining conflicts in LAC. Source: OLCA (2013)

In this context, during the past few decades the LAC region has witnessed several grassroots mobilizations around water, which at times have led to intense confrontations (Box 12.1; Bell et al., 2009; FNCA, 2009). Collective actions often start in communities directly affected by a certain decision, but soon they come into contact with existing networks on the frontline in question, composed by both national and international NGOs. LAC is very diverse and it is difficult to generalize about the most salient features of water-related social activism in the region, as the emergence and characteristics of social movements is heavily influenced by the national socio-political context where they emerge and to which they have to adjust (Zibechi, 2006). However, a common thread of many of these social movements is the defence of the public (community) nature of natural resources and the opposition to their transformation into mere economic goods (Seoane, 2006). Moreover, their main way of influencing decisions is outside formal participation venues described in the next sections. Demonstrations, activism actions and legal litigation become means for some civil society organizations to gain a seat at the negotiating table or, for those that are already present at the table, to increase their negotiation power in formal participation venues.

Box 12.1 Examples of grassroots movements in LAC

Beyond networks of affected people, coalitions often occur, for example in Brazil with the MAB (Movement People Affected by Dams), in strategic partnership with Via Campesina and the MST (Landless Movement), thus achieving a strong impact of their actions nationwide.

The Cochabamba conflict on water privatization known as the 'Water War' not only ignited a continental and even global revolt against the privatization of water services, but cornered the Bolivian government and strengthened the role of Evo Morales as a national opposition political leader. In this case, the regional alliance of unions and city residents with indigenous irrigation communities was essential.

The movement of people affected by toxic pollution of the Santiago River, in Mexico, became so strong that the government had difficulties to deal with it, to the extent that the outbreaks of indignation in rural communities received the support of university researchers, neighbourhood associations and unions of the city Guadalajara.

The movement of Mazahua women, also in Mexico, put the federal government on the ropes when it progressed from being a protest of a small number of communities to a revolt of the Mazahua people, to finally mobilizing tens of thousands of citizens in Mexico City, who endorsed their claim to safe drinking water in their homes as a human right. In 2011, the Mexican Congress granted water as a human right in the Constitution.

Often grassroots movements find a counterpart in organized activism networks. Today, in LAC there are strong national and international networks against open pit mining, oil exploitations, large dams and the privatization of water and sanitation services. These networks provide local communities with information and technical assistance, legal advice and media projection, often in collaboration with important sectors of the scientific community. The incorporation of local communities into these setups is one of the keys to the success of activism networks. When they manage to transform the 'indignation' of whole territories into regional or national citizen mobilization, these movements expose a social conflict difficult to ignore (See Box 12.1). From there, complex political processes are usually open, in which the governments and transnational corporations are not only challenged, but questioned and conditioned. When this occurs, a political component soon emerges that ends up having parliamentary consequences or even producing changes in government. An example is the inclusion of water as a human right in LAC countries' Constitutions such as in Mexico. Because of this Latin America became the first region in the world to institutionalize such a claim (see also Chapter 11).

Social movements and networks, which tend to be non-violent, also resort to the courts. Despite the frequent successes obtained on the legal front, in LAC these favourable rulings are rarely effective in practice, which suggests the limited strength of laws and courts in some LAC countries (Box 12.2). This is why social movements rely primarily on non-violent resistance in their territories and citizen mobilization at regional and national levels. Often, the action moves to the international arena, either through important and prestigious ethical courts, such as the Latin American Water Tribunal or the Court of the People, or taking their complaints to the United Nations or the home countries of transnational corporations that are their opponents in the conflict.

Box 12.2 The use of the justice system to influence decisions

Since the 1980s, two parallel processes have taken place worldwide. On the one hand, greater decentralization and public participation were encouraged and promoted, sometimes without adequate attention to local capabilities and resources. On the other hand, developing countries have signed international treaties for the protection of private international investments. In practice, however, countries often did not fully understand what they were agreeing to (IISD, 2006). International investment agreements signed by central governments override decisions taken at local or municipal level. Countries transfer national jurisdiction to international investment courts that can only operate at the request of investors. International arbitration is thus a market created by investors that applies principles for the protection of investors, without having responsibilities for issues of local importance.

Investment agreements are signed by central governments without community participation. In addition, communities and the public are not necessarily parties to investment litigation (although their participation may be allowed by decisions of the arbitration courts) since their participation is contingent to the sovereign will of the arbitration courts. Thus, no matter the importance that litigation may have for local communities, cases are litigated only by governments and investors. Arbitration courts have condemned countries to pay compensation for environmental measures taken by local governments in relation to water resources (Álvarez, 2004). Thus, in the context of international arbitration, local issues and community participation risk irrelevance: local public interest is of little relevance to arbitration courts, since their mandate consists principally of protecting investors' interests. In fact it can be said that investment arbitration treaties and investment arbitration often empty the public participation processes of their original meaning and power.

Even though demonstrations and activism are important vehicles for civil society organizations to express their demands and points of view about water management decisions to authorities and production sectors, the reform of water institutions is increasingly creating new spaces for negotiation. Because of that, civil society organizations are becoming relevant stakeholders in decision-making processes related to water also through formal participation as discussed below.

12.3 Formal participation as a space for negotiation

Water reforms that have taken place in LAC since the 1980s² have restructured the institutional arrangements and introduced or officiated councils, committees and forums in which stakeholders are recognized as members (for more see Chapter 11). Even though participation in most of the cases is already part of the institutional engineering, its understanding and level of implementation vary from country to country. Indeed, institutional arrangements such as the main unit of water management, the scale at which participatory decision-making processes happen and the types of spaces for negotiation are intertwined factors that shape public participation in each country (Table 12.2).

	LAVV	TYPE OF SPACES FOR NEGOTIATION	SCALE OF ACTION	MEMBERS
BRAZIL		Watershed committees	State and Federal	Federal, state and local representatives, users, civil society organizations
	Law 9433/1997	National Water Council	Federal	Federal, state and local representatives, users, civil society organizations
		State Water Councils	State	State and local representatives, users, civil society organizations
CHILE	Water Code 1981	Water Users Associations, Water communities, Water Channel Associations, Monitoring Communities	Local	Users, NGOs, social movements
COSTA RICA	Water Law 1942	Supplying Water and Sanitation Systems Association (ASADAS), Public consultations	Local and national	Users and civil society organizations
MEXICO	Water Law (Ley Aguas Nacionales LAN) 1992/2004	River basin committees -	Regional (watershed)	State, users associations, NGOs, enterprises, Academia
PERU	Law 23899/2009 (Lev de Recursos	Basin council	Local and reaional	Users, universities, associations, campesinos and natives commu-
	Hídricos)	Water users organizations		nities, state, local and regional representatives

Table 12.2 Comparative overview of participatory levels in selected LAC countries

In the countries presented on Table 12.2, formal participation is understood as part of a strategy that will lead the competent water authorities to share the decision-making processes with different stakeholders. Despite that, the State continues to be the main and ultimate decision maker. Additionally, water authorities are responsible for influencing

Source: own elaboration.

² The institutional water reforms started to take place in 1981, through the Chilean Código de Agua, followed by the Ley Aguas Nacionales in Mexico in 1992, the Lei das Águas in 1997 in Brazil and, recently, in 2009, the Ley de Aguas de Peru. However, countries such as Costa Rica still have not undergone institutional water reforms and water is still managed by institutions placed under different ministries that barely interact with each other (Table 12.2). Such dynamics were common in other Latin American countries such as Peru until 2008.

the speed in which participatory spaces are created, as well as defining and enforcing the rules to make them active (Scott and Banister, 2008). Users and other civil society organizations can participate in the control and maintenance of the system at local level, or make suggestions when water management plans are elaborated. The only exception is Chile, where the legislation identifies the market (instead of the State) as the main force influencing water rights allocation (Bauer, 1998).

This reflects how social participation takes place and its impact on water governance. For instance, Chile focuses on water management at the level of the water bodies and therefore its institutional arrangements establish that participation should happen mainly at local level through Water Users Associations, Water Communities, Water Channel Associations and Monitoring Communities. These are spaces where water is managed and controlled on a daily basis and conflicts among different water users should be negotiated (Bauer, 1997, 1998). The Peruvian system also allows for this type of participation through the Juntas de Usuarios y Comités responsible for operating and distributing water locally as well as for collecting water taxes and tariffs at local level. This type of participation is known as activity-specific participation in which stakeholders are asked to undertake specific tasks, working as executors instead of planners, defining how water should be allocated and who should have access to it (Pretty, 1995; Agarwal, 2001; Chambers, 2005; Empinotti, 2007). Participation at the local level is instrumental.

On the other hand, the Mexican, Brazilian and Peruvian systems assume river basins as the unit of water management and concentrate stakeholders' participation at the river basin and regional level. Participation takes place in the form of stakeholders input into planning, coordination and implementation of river basin plans as well as to build consensus among the members of these councils. In these cases, participation is basically a consultation since stakeholders are asked for opinions and suggestions during the elaboration of water management plans, although in Peru and Mexico their impact over the final decisions is still quite limited (Wester et al., 2005; Jiménez-Cisneros and Galizia-Tundisi, 2012). On the other hand, in the Brazilian context, stakeholders are able to influence decisions made in the river basin councils. Indeed, in those councils the number of seats for users and civil society organizations combined can outnumber those of the State, thus providing them with decisional power if their interests converge on a specific issue, while not one of the sectors alone can approve a proposal without the support of others. However, the impact of these negotiated river basin plans is void at the moment that the government disregards them as a tool to support its decisions in the construction of water infrastructure and water allocation, consequently weakening the water institutions and contributing to the understanding that the State still holds the main stake over water management in the country (Empinotti, 2011). Besides, in the Brazilian institutional structure, water governance also takes place at national and state level through the National Water Council and the State Water Councils respectively. In these councils, stakeholders and the State are responsible for defining the main guidelines for water management and for regulating water legislation. Nevertheless, the State has the majority of seats at the national and state councils, thus reducing the role of stakeholders

and transforming participation into a consultative practice, hence maintaining the State as the main decision maker (Jacobi, 2009).

In Costa Rica, even though the Water Law does not create spaces for participation, other laws such as the Association Law and Law 8660/2008 allow associations that regulate the water distribution at the local level (Supplying Water and Sanitation Systems Association – Asociaciones Administradoras de Sistemas de Acueductos y Alcantarillados Sanitarios, ASADAS) and a national agency to promote participation of civil society organizations (Regulatory Authority for Public Services – Autoridad Reguladora de los Servicios Públicos, ARESEP). Users participate in different moments at the local level, and at the national level the participation of civil society organizations takes place while public consultation meetings are promoted by ARESEP. Recently the Ministry for Environment, Energy and Seas has reinforced water policy by creating the Vice Ministry for Water and Seas. However, it is early to see the results of these organizational changes.

Notwithstanding that the State maintains control over water institutions, it is worth emphasizing that water reforms have reinforced the participation of the private sector, as water users, within the decision-making processes, empowering this sector in comparison with other social actors. One of the reasons for that is how legislation defines stakeholders. For instance, in the Chilean, Mexican and Peruvian cases, stakeholders' participation occurs mainly through users associations and state agencies, thus allowing the private sector to become a main actor in the process with access to negotiation spaces that were not in place before. For this reason, stakeholders' participation is constrained to the scope and interests of each users association, including mining and electricity companies. This has led to uncoordinated actions, specifically related to bodies of water that, in the long run, can affect the sustainability of the river basin (IIC, 2011). These characteristics reflect the bias towards a technocratic and utilitarian perspective of water since the institutional arrangements consider that only sectors such as agriculture, industry, fishery or the mining industry should be involved in decision-making processes. From this perspective, water management should be restricted to direct users, the State, or the market as in the case of Chile, with little consideration of other perceptions such as those of NGOs, social movements or even unions, leaving social actors marginalized in the water governance processes.

The Brazilian, Mexican and Peruvian models, however, allow other organizations, besides users, to participate in water-related advisory or decision-making bodies. In the Brazilian context civil society organizations are represented by NGOs, communitarian and professional associations, unions, universities, research institutes and indigenous communities (Lei das Águas n. 9433, 1997). The Peruvian legislation reserves seats for natives and traditional communities in the river basin committees along with users (Ley de Recursos Hídricos n. 29338, 2009). In Mexico, rural groups, small businesses, environmental organizations and social platforms should be part of the river basin committees but they are systematically excluded from the councils (Boelens et al., 2011).

It is important to point out that natives and traditional populations are also underrepresented sectors in formal participatory forums, which exemplifies that there is a distance between having a seat, being allowed to negotiate and the ability to have your claims transformed into practices (Agarwal, 2001). Indeed, even though the Brazilian and Peruvian legislation recognizes and enables seats for these groups, they usually represent around 2% of the total council, thus barely having any power during the voting processes. However, their presence in participatory institutions at least allows for the introduction of their own agenda into the discussion, even if they have little guarantee that their claims will be addressed.

As a consequence of the persistent control of governments at different organizational levels over the participatory forums and their recommendations, civil society organizations such as NGOs, research institutes and social movements given visibility to their claims through activism and advocacy, while the private sector intensifies its influence through parallel forums and alliances with some civil society organizations in defining parameters for water certification and water efficiency indicators. The use of spaces to influence decision-making processes that go beyond the formal participatory institutions reflects the logic of the system's characteristics. First of all, multi-stakeholder platforms, such as water councils and committees, focus on consensus-building by providing a conductive space for mutual understandings. This is a recommended practice where a single actor does not dominate the field and there is a basic willingness to communicate (Warner, 2005). One of the main purposes should be to forestall conflict situations by discussing the water management practices and interventions among different stakeholders (*ibid.*). In this context, conciliation techniques help building a positive relation between the parties of a given dispute (Squbini et al., 2004). The success of conciliation over environmental conflicts resides in strengthening collective imaginaries on the importance of rights and duties involved in the protection of the environment (Velásquez Muñoz, 2004).

Nonetheless, there are at least two problems that go against the multi-stakeholder platform assumptions described above. First, water issues are complex problems in which different actors have antagonist views on how to solve them, considering how water should be allocated and by whom (Warner, 2005; Jacobi, 2006). Second, decisions over water allocation and the construction of water infrastructure take place at government level, and then they are brought to councils and committees. Stakeholders' discussions concentrate mainly on decisions previously made, which leads some actors to believe that their participation is only to legitimize the government's decisions. As a consequence, frustrated civil society organizations withdraw from councils and committees since they perceive their participation as inefficient in promoting their own agenda or in changing government's plans. Thus, the government and private sector's agenda are the ones prevailing and influencing the water management in the region (Boelens et al., 2011; Empinotti, 2011).

In general, most participatory processes in LAC remain at the information and consultation stages. A meaningful and interactive participation would require devolving mandates down to the lowest practicable level and giving people the right to say 'no' to interventions proposed by the government. Nonetheless and even though in many cases formal participation is still incipient and does not meet initial expectations, it should be acknowledged that it is contributing to share water governance decisions and to expose problems and conflicts about how water is allocated in different regions and contexts.

12.4 Water certification as a new space for negotiation

Another space for negotiation that is effective but usually not recognized takes place when civil society organizations and private sector organizations discuss and propose new approaches to future public policies regarding water management. The private sector is one of the main water users and consumers. Industrial and agricultural practices together correspond to more than 90% of water consumption in the world (World Bank, 2010; Hoekstra and Mekonnen, 2012), which makes the private sector the main water user. Consequently, this sector's interest over water issues focuses on guaranteeing its access to water resources as a means to reducing water-related risks for its business activities. In order to achieve this goal, lobbying practices and the proposal for new market mechanisms become strategies to shape future water policies.

While green NGOs lobby the State and legislative bodies for an environmental agenda, or professional associations push for a technical approach to manage water, organizations representing the private sector's interests have been focusing mostly on securing regulations that do not constrain business and on ensuring that the regulatory environment is consistent across government departments, predictable and stable over time and applied to all the companies in a similar way (Pegram et al., 2009). In this context, the water law reforms that have occurred in LAC during the past three decades were an opportunity for the private sector to influence the process. In the Brazilian case, the industrial sector was one of the most active groups in Congress during the negotiation of the 1997 Water Law, advising their representatives and influencing the final text. In Peru, during the debates over and the formulation of the 2009 Water Resources Law in Congress, the private sector – mainly the National Mining, Energy and Petroleum Association – was able to actively influence the final text. Some of their agenda was translated into law through the authorization of economic activities in headwaters, and the introduction of concepts such as efficiency in water use and equity in access (Budds and Hinojosa-Valencia, 2012).

At the same time, multinational and international industries direct their attention to the discussion of water use indicators and future certifications related to water use in the production process. The strategy is to discuss and elaborate rules among companies and civil society organizations that could become the reference for future public policies. Researchers identified such practices as private governance and non-state market-driven governance systems that allow the private sector to influence the rules that will impact their production practices in the future (Cashore, 2002; Smith and Fischlein, 2010). One of the consequences of this strategy was the inclusion of water indicators into the corporations' social environmental responsibility portfolio. Such a trend has developed during the last six years, when the water footprint method, combined with the ISO initiative to create a protocol on water use, attracted the corporations' attention (Daniel and Sojamo, 2012; Empinotti, 2012). These initiatives of multinational organizations were triggered by their interest in assessing the water-related risks for their business – from both a regulatory and a physical point of view – as well as the need to address the consumers' expectation for environmental commitment (Hepworth, 2012; Larson et al., 2012).

The debate over the water footprint and other initiatives captured the attention of transnational corporations such as Coca-Cola, SABMiller and Nestlé, which compete in the international scale and have their production chain spread all over the globe. Moreover, LAC industries discussing such issues are usually large exporters of raw materials and have their main consumer markets abroad (see Table 12.3).

Interestingly, these types of initiatives have low participation rates of LAC industries in comparison to other regions of the world. For instance, only 36% of the invited Latin American corporations adhered to the Carbon Disclosure Project's Water Initiative, compared to 62% in North America, 80% in Europe, 80% in Africa, 51% in East Asia and 62% in Southeast Asia and Oceania (Deloitte, 2012). In the CEO Mandate, only two out of a total of ninety-one endorsing companies are from LAC. This could be partially explained by the geographical distribution of the corporations' headquarters but there could be also other more substantive reasons that ought to be explored.

While many of the Latin American companies listed in Table 12.3 are still in the process of calculating their water footprint, those that already have their results, in general, treat them confidentially and are discussing them internally. Initiatives for water accounting, however, did not promote changes in water governance practices nor did they trigger the discussion of new public policies, following an international trend (Hepworth, 2012, Sojamo and Larson, 2012). An interesting exception occurred in Brazil, where the industrial sector and international environmental NGOs engaged in a lively discussion over indicators for water efficiency and regulation (Empinotti, 2012). While supporting NGOs' initiative by creating a broad water indicator, the industrial sector was concerned with the possibility of having a public policy defining the acceptable amount of water that each sector should use. From the industrial perspective, such a reference would increase State control over water rights and distribution. Such concern led the industrial sector to redirect the discussion initially driven by governmental agencies towards the use of certifications that acknowledge the industries initiatives in reducing their water use, instead of establishing rules that could define and limit the average amount of water that can be allocated to each industrial sector (Empinotti, 2012).

During the past decades, the interaction between the private sector and civil society organizations has shaped environmental discussions and new public policies. However, it is understandable that the private sector participation in water-related spaces for negotiation serves the ultimate goal of ensuring water access for its production processes. Thus, there is no guarantee that water will be better or more equally distributed among the different society sectors or that water use will be more sustainable, if this does not revert positively in business activity. For this reason, the participation and contribution of the private sector to water governance should be adjusted and constantly evaluated, to push the private sector to understand water as a common good and human right, following the principles defined by most of LAC water legislations.

	SECTOR	COUNTRY	INITIATIVE		
Natura	Cosmetics	Brazil	WFN 1 / WBCSD 2		
FIBRIA	Pulp	Brazil	WFN/WBCSD		
Cimentos Liz	Cement	Brazil	WBCSD		
Abril Group	Media	Brazil	WBCSD		
Petrobrás	Oil	Brazil	WBCSD		
Suzano Papel e Celulose	Pulp and paper	Brazil	WBCSD		
Votorantim	Cement, metals, energy, steel, agribusiness	Brazil	WBCSD		
Grupo Orsa	Pulp and paper	Brazil	WBCSD		
Banco do Brasil	Banking	Brazil	The CEO Water Mandate $^{\rm 3}$		
Vale	Mining	Brazil	CDP – Water Initiative - WBCSD ⁴		
Cia. Siderurgica Nacional – CSN	Steel	Brazil	CDP – Water Initiative		
ABInBev	Beverage	Belgian-Braziliar	${\sf BIER}$ – water stewardship 5		
Quimico del Campo	Metals	Chile	WFN		
Vinã Concha y Toro	Wine	Chile	WFN		
Vinã del Martino	Wine	Chile	WFN		
Vinā Errazuriz	Wine	Chile	WFN		
Codelco	Mining	Chile	WBCSD		
Masisa	Timber	Chile	WBCSD		
Empresas CMPC	Pulp and paper	Chile	WBCSD		
Cementos Argo	Cement	Colombia	WBCSD		
EPM Group	Energy and water	Colombia	WBCSD		
Grupo Nutresa	Food	Colombia	CEO Mandate		
Ecopetrol	Oil	Colombia	CDP – Water Initiative		
CEMEX	Cement	Mexico	WBCSD		
Wal Mart de Mexico	Retail	Mexico	CDP – Water Initiative		
Fresnillo	Mining	Mexico	CDP – Water Initiative		

Table 12.3 Latin American companies involved in water networks and initiatives on water accounting tools

Source: own elaboration based on data from WBCSD, WFN, CDP, CEO Water Mandate 1 Water Footprint Network Initiative, 2 World Business Council for Sustainable Development 3 UN Global Compact's CEO Water Mandate, 4 Carbon Disclosure Project (CDP) Driving Sustainable Economies, 5 Beverage Industry Environmental Roundtable – Water Stewardship.

12.5 Accountability and information transparency: two faces of the same coin

Accountability and transparency are often pointed out as 'silver bullets' against corruption and bad governance in the water sector (Stalgren, 2006; Transparency International, 2008; Asís et al., 2009; UNDP, 2011; Regional Process of the Americas, 2012), which, in turn, are considered to have a key role in poor service provision, environmental degradation, society inequity and other important failings of the water sector. Accountability implies being held responsible for one's actions: from the approval of e.g. a new water infrastructure, down to the decision of turning a tap on and off to provide water in a specific location or for a specific use. Thus, it is a relationship between those that are held accountable (e.g. politicians, government officials, private companies or individual citizens) and those entitled to demand accountability (e.g. social and State actors) and to apply sanctions in cases of poor performance or abuses (Hernández et al., 2013). Accountability entails answerability, i.e. the existence of formal processes where actions are judged according to specific criteria. Answerability, in turn, requires access to information by those who demand accountability and the obligation to justify one's actions and decisions if required to do so. For many, information transparency and justification alone, however, do not guarantee accountability, as it is necessary to have in place mechanisms and bodies with enforcement capacity, i.e. to apply sanctions for not meeting the established standards or not playing by the rules (Schedler, 1999; Schedler, 2004; Fox and Haight, 2007; Peruzzotti, 2008).

This section focuses on societal accountability³ of the public authorities or companies that manage water resources or provide water services. The 'right to know' for constituents, customers or civil society organizations in general is usually pursued through two different strategies: the first is top-down, which means that public institutions proactively provide information to the public on issues relevant to water management (Fox and Haight, 2007). Typically this strategy is implemented through the internet, as proactive information. This method is relatively easy and inexpensive and it contributes to reducing the number of requests for information (Mendel, 2009). The second strategy (bottom-up) implies that the public files information requests normally following well-established procedures. However, even if these strategies are in place, information provision can be 'opaque', since the material is only nominally available given that it is often presented in a way that is difficult to understand/use or, more importantly, because it is not reliable (Fox and Haight, 2007).

12.5.1 Legal provisions to foster access to information

The analysis of existing initiatives to ensure information transparency suggests that in LAC there is a keen perception of this issue and a large body of legal provisions to pursue it. The legal basis comes from specific articles in the Constitution (e.g. in Colombia, Ecuador or Mexico) and/or from specific laws that deal with the issue of access to information. Most of the laws address the freedom of information in general, but in several countries there are also laws that regulate the access to environmental information (e.g. in Argentina), which is particularly relevant to water management. In some cases, sector laws like the Brazilian water law also establish the creation of an information system that should contain information to support decision-making processes related to water governance and management.

³ Downward or societal accountability means being answerable to a constituency (users, customers or society in general).

Since the end of the 1990s in the LAC region there has been a surge of information transparency laws (Figure 12.2), and currently about two-thirds of the countries in the region already have a specific law for access to information in place. Moreover, transparency portals are becoming a common way of conveying information to the citizens in a centralized way and examples of it can be found in Peru, Guatemala, Bolivia, Colombia, Chile, Brazil and Mexico. Usually they are websites managed by the government devoted to publishing public financial information regarding public companies, municipalities and government procurement (Solana, 2004) and can be a tool to empower civil society organizations. These portals, however, rarely have specific information about water.



Figure 12.2 Timing of approval of information transparency law in LAC. Source: own elaboration with data from Mendel (2009), Vleugels (2009) and Michener (2010).

A comparative analysis of key elements of transparency laws in twelve LAC countries (Michener, 2010) suggests that the weakest points of the existing legal provisions for information transparency are related to the regulation of exceptions and of the appeals in cases of information denial, while the scope of the law and the duty to publish are quite well developed (Table 12.4).

LAC laws, and in particular the Peruvian one, have progressive rules in relation to the duty of public bodies to publish information in a proactive manner. Several countries have, at least on paper, well-developed systems to foster agile access to information. For example, in Mexico, Nicaragua and Ecuador there are specific rules on how to make information, that is subject to proactive publication, easy accessible (e.g. information index, list of classified information) (Mendel, 2009). The dominant trend in all countries in the region is to make increasingly more information available on a proactive basis, particularly via the internet, even in cases when it is not required under an information transparency law (*ibid*.).



Table 12.4 Strengths and weaknesses of the existing transparency laws in several LAC countries. Scores are from 0 to 3. Colours are for interpretation only. Criteria for the scoring can be found in Michener (2010).

Many LAC transparency laws, but not all of them, impose the duty to publish not only to public corporations but also to private bodies, which receive funding through public contracts. In Peru, the obligation is even extended to all bodies exercising a public power or performing a public function (Mendel, 2009). In some countries, like Chile and Colombia, only corporations with 50% public ownership are covered, although a large block of State involvement ought to adhere to the principle of openness, since significant involvement of the State in a corporation normally signals a public interest in its operations (*ibid.*).

The two most common options for appeal in case of refusal of information are internal complaints or complaints to an independent oversight body and/or the courts. Many laws – e.g. in the Dominican Republic, Guatemala and Peru – include legal provisions for an internal appeal, usually to a higher authority within the same body which originally refused the request. Chile, Honduras and Mexico appoint an independent administrative oversight body for the review of denials of information (*ibid.*). Most laws in Latin America, as well as globally, include a regime of sanctions for individuals who obstruct access to information, and some also provide for the direct responsibility of public bodies. In some countries – like the Dominican Republic and Peru – it is a criminal offence to obstruct access to information, while in other countries – like Chile, Honduras and Mexico – the law provides for administrative liability (*ibid.*).

Source: own elaboration based on Michener (2010).

12.5.2 Implementing legal provisions: are they enough to have transparent water sector?

As for any legislation, the mere existence of a legal framework is no guarantee of achieving satisfactory access to information, either because of flaws in the design of the law or, more often than not, due to difficulties in its implementation. In LAC, most of the existing comparative studies focus on the strength on paper of legal provisions, but several watchdog initiatives and academic studies also point out gaps in the implementation of the law (Alianza Regional, 2009; Fraga, 2012; IDB, 2012; Soto and Rojas, 2012; Torres, 2012). But how does this apply to water? Do legal provisions for information transparency manage to make the water sector truly transparent? In the water sector, benchmarking exercises typically assess the technical performance of water utility companies (Table 12.5). In some cases, they also include criteria related to governance, financial performance, or customer service. Thus, they do not assess information transparency but do contribute to making water and sanitation companies more transparent. Transparency benchmarking as such is rare. An ongoing initiative to improve Brazil's water agencies' transparency is based on a methodology first applied in Spain and has been adapted to Brazil (Empinotti and Jacobi, forthcoming). It represents an exception to the rule in that it looks at water management as a whole and not only at a specific sector (e.g. water utilities).

EVALUATING AGENCY	COUNTRIES	PERIODICITY	INDICATORS
Interamerican Development Bank	LAC countries	On request	Service quality, business management efficiency, operating efficiency, access to service, investment planning and execution, financial sustainability, environmental sustainability, corporate government and accountability
Fitchratings	Mexico, Colombia, Panama	Yearly	Control, coverage, charges, cash, capital, capacity, legal compliance, community and clients
Grupo Regional de Trabajo de 'Benchmarking' de la Asociación de Entes reguladores de agua y saneamiento	Several LAC countries	Yearly	Performance indicators: service structure, operational structure and service quality, economic indicators
Superintendencia Nacional de Servicios de Saneamiento	Peru	Quarterly/ yearly	Access and quality of the service, billing, economic and financial sustainability, management efficiency, governance, customer service and eco-efficiency
Superintendencia de Servicios Públicos Domiciliarios	Colombia	Monthly/ quarterly	Registration of property, control of assets, fixed assets insured, compliance of contractual agreements, settlement of contracts
Superintendencia de Servicios Sanitarios	Chile	Yearly	Water treatment, drinking water quality, water continuity, accuracy in billing, complaints
Benchmarking Central American Water Utilities	Cosra Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama	Yearly	Water quality, water standards, leaks, operation costs, water consumption, connections networking, service coverage, metering, water cost
International Benchmarking Network International Bank	International	Yearly	Service coverage, production, non-revenue water, metering practices, network performance, cost and staffing, quality of service, billings and collection, financial performance, assets, affordability of services, process indicators

Table	12.5 Exam	ples of	benchmarking	initiatives	of water	and sc	anitation	utilities	companies
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Source: own elaboration.

As mentioned previously, the internet is a powerful tool for conveying relevant information about water management to society. An online search of some key information in some countries in LAC provides insights into areas where there is a very progressive and proactive information provision and issues that still have a poor coverage (Table 12.6). Interestingly, online consultation seems to be a real possibility in the considered countries. Water authorities use the internet to make water rights registers accessible or publish documents for public consultation, but they rarely use it to record and make public the received comments. Significant gaps in information provision are related to the application of water law infractions, sanctions and the follow-up of the execution of public works.

Table 12.6 Online availability of information about selected issues in five LAC countries. The table reflects the information available online on February 2013 and that which could be found by consulting the websites of public organizations in charge of managing water resources in each country.



Source: own elaboration.

From the above, it can be concluded that most LAC countries have well-developed and in some cases very progressive information transparency laws, which can contribute to the transparencys of water-related public bodies. The actual implementation of the legal obligations to information disclosure is ongoing and it surely fostered by benchmarking initiatives and watchdog studies promoted by civil society and international organizations, mainly for the water and sanitation sector. To provide water for human uses in a sustainable way, however, it is key to have a holistic approach and consider the system that provides those resources – rivers, aquifers watersheds, wetlands. Thus, the next step is to assess and seek information transparency in the management of the whole system, and not only at the end of the pipe, where water is supplied.

References

- Agarwal, B. (2001). Participatory Exclusion, Community Forestry, and Gender: An Analysis for South Asis and a Conceptual Framework. *World Development,* 29: 1623–1648.
- Aguariosypueblos.org. (2013). Agua rios y pueblos. [Online] www.aguariosypueblos.org/. [Accessed July, 2013].
- Alianza Regional (2009). Saber Más I: Informe regional sobre la situación actual del acceso a la información pública. Alianza Regional para la Libre Información y Expresión. 143° Período de Sesiones de la Comisión Interamericana de Derechos Humanos. [Online] Available from: www.redrta.org/Publicaciones/Alianza%20Regional.pdf. [Accessed July, 2013].
- Allan, J.A. (2013). Introduction: Can improving returns to food-water in Africa meet African food needs and the needs of other consumers?. In: Allan, J.A., Keulertz, M., Sojamo, S. & Warner, J. (eds). Handbook of Land and Water Grab in Africa. pp 1–8. Routledge, Abingdon.
- Álvarez, G. (2004). Técnicas Medioambientales TECMED, S.A. v. United Mexican States: Introductory Note. ICSID Case number ARB(AF)/00/2. *ICSID Review*, 19: 154–157.
- Arrojo, P. (2005). El reto ético de la nueva cultura del agua: funciones, valores y derechos en juego. Paidós, Barcelona.
- Arrojo, P. (2010). The Global water Crisis. Barcelona, Justícia, C. I.
- Asís, M.G.d., O'Leary, D., Ljung, P. & Butterworth, J. (2009). Improving Transparency, Integrity, and Accountability in Water Supply and Sanitation: Action, Learning, Experiences. The World Bank, Washington.
- Bauer, C. (1997). Bringing Water Markets Down to Earth: The Political Economy of Water Rights in Chile, 1976–1995. World Development, 25: 639–656.
- Bauer, C. (1998). Slippery Property Rights: Multiple Water Uses and the Neoliberal Model in Chile, 1981–1995. Natural Resources Journal, 38: 109–155.
- Bell, B., Conant, J., Olivera, M., Pinkstaffm C. & Terhorst, P. (2009). Changing the Flow: Water Movements in Latin America, Food and Water Watch, Other Worlds, Reclaiming Public Water, Red VIDA Transnational Institute.
- Berry, K. & Mollard, E. (2010). Introduction: Socila Participation in Water Governance and Management. In: Berry, K. & Mollard, E. (eds). Social Participation in Water Governance and Management. pp.20–28. Earthscan, London.
- Biswas, A.K. (2011). Transboundary Water Management in Latin America: Personal Reflections, International Journal of Water Resources Development, 27(3): 423–429.
- Boelens, R., Mesquita, M.B.d., Gaybo, A. & Peña, F. (2011). Threats to Sustainable Future: Water Accumulation and Conflict in Latin America. Sustainable Development Law and Policy, 12: 41–45, 67–69.
- Budds, J. & Hinojosa-Valencia, L. (2012). Restructuring and Rescaling Water Governance in Mining Contexts: the co-production of waterscapes in Peru. Water Alternatives, 5: 119–137.
- Cashore, B. (2002). Legitimacy and the Privatization of Environmental Governance: How non-state market-driven (NSMD) governance systems gain rule-making authority. Governance: An International Journal of Policy, Administration, and Institutions, 15: 503–529.
- Castro, J.E. (2008). Water Struggles, Citizenship and Governance in Latin America. *Development*, 51: 72–76.
- Chambers, R. (2005). Participation: review, reflections and future. Ideas for Development, Earthscan, London.

- De Stefano L., Edwards P., de Silva L. & Wolf, A.T. (2010). Tracking Cooperation and Conflict in International Basins: Historic and Recent Trends. *Water Policy*, 12(6): 871–884.
- De Stefano, L., Duncan, J., Dinar, S., Stahl, K., Strzepek, K.M., & Wolf, A.T. (2012). Climate Change and the Institutional Resilience of International River Basins. *Journal of Peace Research*, 49 (1): 193–209.
- Daniel, M. & Sojamo, S. (2012). From Risk to Shared Value? Corporate strategies in building a global water accounting and disclousure regime. Water Alternatives, 5: 636–657.
- Deloitte (2012). Collective Response to Rising Water Challenges. CDP Global Water, London. Report 2012.
- ECLAC (2013). Economic Commission for Latin America and the Caribbean. Preliminary Overview of the Economies of Latin America and the Caribbean. ECLAC, Santiago, Chile.
- Empinotti, V.L. (2007). Re-framing Participation: the Political Ecology of Water Management in the Lower São Francisco River Basin - Brazil. University of Colorado. Ph.D.
- Empinotti, V.L. (2011). E se eu não quiser participar? O caso da não participação nas eleições do comitê de bacia do rio São Francisco. *Ambiente e Sociedade*, 14: 195–211.
- Empinotti, V.L. (2012). O setor privado e a Pegada Hídrica: risco, oportunidade e vulnerabilidade. In: Empinotti, V. & Jacobi, P. R. (eds). Pegada Hídrica: inovação, co-responsabilização e os desafios de sua aplicação. pp. 119–135. Annablume, São Paulo.
- Empinotti, V.L. & Jacobi, P.R. (2013). Novas práticas de governança da água? O uso da pegada hídrica e a transformação das relações entre o setor privado, organizações ambinetais e agências internacionais de desenvolvimento. Desenvolvimento e Meio Ambiente, 27: 23–36.
- Empinotti, V.L. & Jacobi, P.R. (forthcoming). *Transparência na Gestão dos Recursos Hídricos no Brasil*. Universidade de São Paulo, São Paulo.
- Flota, E.d.R.P., Villela, M.d.J.E. & Hernández, Á.G. (2012). Concesiones Mineras en Tierras Ejidales: Detrimento de la Propiedad Social. Revista Iberoamericana para la Investigación y el Desarrollo Educativo, 9.
- Fox, J. & Haight, L. (2007). Las reformas a favor de la transparencia: teoría y prática'. In: Fox, J., Haight, L., Hofbauer, H. & Sánchez, T. (eds). 'Derecho a saber. Balance y perspectivas cívicas'. Fundar-Centro de Análisis y Investigatición, Cidade do México.
- FNCA (2009). Fundación Nueva Cultura del Agua. Agua, Ríos y Pueblos. Homenaje a quienes luchan por defender los ríos y sus gentes. Pedro Arrojo Agudo (coord.): Fundación Nueva Cultura del Agua. [Online] Available from: www.aguariosypueblos.org/en/ [Accessed July, 2013].
- Fraga, I. (2012). Brazil's Access Law Active, But Problems Still Remain. Washington DC. [Online] Available from: www.freedominfo.org/2012/07/brazils-access-law-active-but-problems-stillremain/2013. [Accessed May, 2013].
- Hepworth, N. (2012). Open for Business or Opening Pandora's Box? A Constructive Critique of Corporate Engagement in Water Policy: An Introduction. *Water Alternatives*, 5: 543–562.
- Hernández, A., Flórez, J. & Hincapié, S. (2013). Impact of Accountability in Water Governance and Management. Regional Analyis of Four Case Studies in Latin America, Universidad de los Andes and UNDP Virtual School. Draft report No. I.
- Hoekstra, A.Y. & Mekonnen, M.M. (2012). The water footprint of humanity. Proceedings of the National Academy of Sciences, 109: 3232–3237.

- IDB (2012). Interamerican Development Bank. Open Government and Targeted Transperancy: Trends and challenges for Latin America and the Caribbean. Interamerican Development Bank, Washington DC.
- IIC (2011). Instituto Ingenieros de Chile. Temas Prioritarios para una Politica Nacional de Recursos Hídricos. Santiago, Chile. [Online] Available from: documentos.dga.cl/REH5332.pdf. [Accessed July, 2013].
- IISD (2006). International Institute for Sustainable Development of Canada. Pakistan attorney general advises states to scrutinize investment treaties carefully. Investment Treaty News: International Institute for Sustainable Development. [Online] Available from: www.iisd.org. [Accessed May, 2013].
- Jacobi, P.R. (2006). Participação da Gestão Ambiental no Brasil: Os Comitês de Bacias hidrográficas e o desafio do Fortalecimento de Espaços Públicos Colegiados. In: Alimonda, H. (ed.). *Los Tormentos de la Materia*. pp. 169–194. CLACSO Libros, Buenos Aires.
- Jacobi, P.R. (2009). Governança da Água no Brasil. In: Ribeiro, W. (ed.). *Governança da Água no Brasil: uma visão interdisciplinar.* pp 35-60. Annablume, São Paulo, Brazil.
- Jiménez-Cisneros, B. & Galizia-Tundisi, J. (Coord.) (2012). Diagnóstico del Agua en las Américas. Mexico, Red Interamericana de Academias de Ciencias (IANAS) and Foro Consultivo.
- Larrain, S. & Schaeffer, C. (2010). Conflicts over water in Chile: Between human rights and market rules. Heinrich Böll Foundation, Santiago, Chile.
- Larson, W., Freedman, P., Passinsky, V., Gubb, E. & Adriaens, P. (2012). Mitigating Corporate Water Risk: Financial Market Tools and Supply Management Strategies. *Water Alternatives*, 5: 582–602.
- Mendel, T. (2009). The Right to information in Latin America: a comparative legal survey. Quito, Ecuador.
- Michener, R.G. (2010). The Surrender of Secrecy: Explaining the Emergence of Strong Access to Information Laws in Latin America. University of Texas at Austin. Ph.D.
- Oliver-Smith, A. (2009). Development and Dispossession. The Crisis of Forced Displacement and Resettlement. School for Advanced Research Press, Santa Fé, Argentina.
- OLCA. (2013) Observatorio Latinoamericano de Conflicitos Ambientales. Sistema de Información para la gestión comunitaria de Conflictos Socio-ambientales mineros en Latinoamérica [Online] Available from: basedatos.conflictosmineros.net/ocmal_db/ [Accessed October, 2013].
- Oswald Spring, Ú. (2011). Water Resources in Mexico. Scarcity, Degradation, Stress, Conflicts, Management, and Policy, Springer Verlag, Berlin.
- Pegram, G., Orr, S. & Williams, C. (2009). Investigating Shared Risk in Water: corporate engagement with the public policy process. [Online] Available from: assets.wwf.org.uk/ downloads/investigating_shared_risk.pdf. [Accessed August, 2013]. Online report.
- Peruzzotti, E. (2008). *Marco Conceptual de la Rendición de Cuentas*. [Online] Available from: www.agn.gov.ar/ctrc/documentos%20ctrc/peruzzotti%20ii.pdf. [Accessed August, 2013].
- Pretty, J.N. (1995). Participatory Learning of Sustainable Agriculture. *World Development*, 23: 1247–1263.
- Rebagliati, E.B. (2004). Avanzando la Agenda del Agua: aspectos a considerar en América Latina. En Series sobre Elementos de Políticas, Fascículo 2. Organización de Estados Americanos/ Unidad de Desarrollo Sostenible y Medio Ambiente.
- Regional Process of the Americas. (2012). Americas' Water Agenda: Targets, Solutions and the Paths to Improving Water Resources Management. [Online] Technical Document prepared at

6th World Water Forum, Marseille. February 2012. Available at: www.gwp.org/Global/ GWP-CAm_Files/Americas'%20Water%20Agenda.pdf [Accessed October, 2013].

- Schedler, A. (1999). Conceptualizing Accountability. In: Schedler, A., Diamond, L. & Plattner, M. F. (eds). The Self-Restraining State: Power and Accountability in New Democracies. Lynne Rienner Publishers, Colorado.
- Schedler, A. (2004). ¿Qué es la rendición de cuentas?. [Online] Available from: works.bepress. com/andreas_schedler/6/. [Accessed July, 2013].
- Seoane, J. (2006). Movimientos sociales y recursos naturales en América Latina: resistencia al neoliberalismo, configuración de alternativas. *Sociedade e Estado*, 21(1): 85–107.
- Scott, C.A. & Banister, J.M. (2008). The Dilema of Water Management 'Regionalization' in Mexico under Centralized Resource Allocation. Water Resources Development, 24: 61–74.
- Sgubini, A., Prieditis, M. & Marighetto, M. (2004). Arbitration, Mediation and Conciliation: differences and similarities from an International and Italian business perspective. [Online] Available from: www.mediate.com/articles/sgubinia2.cfm. [Accessed August, 2013].
- Sinnott, E., Nash, J. & Torre, A.d.I. (2011). Natural Resources in Latin America and the Caribbean: Beyond Booms and Busts?. [Online] Available from: openknowledge.worldbank.org/bitstream/ handle/10986/2482/555500PUBONatu1EPI1991501801PUBLIC1.pdf?sequence=1. [Accessed July, 2013].
- Smith, T. & Fischlein, M. (2010). Rival Private Governance Networks: Competing to define the rules of sustainability performance. *Global Environmental Change*, 20: 511–522.
- Sojamo, S. & Larson, E.A. (2012). Investigating Food and Agribusiness Corporations as Global Water Security, Management and Governance Agents: The Case of Nestlé, Bunge and Cargill. *Water Alternatives*, 5: 619–635.
- Solana, M. (2004). Delivering Public Financial Information to Citizens in Latin America. Civil Society Team. The World Bank, Washington DC.
- Soto, M. & Rojas, C. (2012). Resultados Índice Latinoamericano de Trasnparencia Legislativa Argentina-Chile-Colombia-México-Perú. Mexico DF, Mexico.
- Stalgren, P. (2006). Corruption in the Water Sector: Causes, Consequences and Potential Reform. Swedish International Water Insitute.
- Transparency International (2008). *Corruption in the Water Sector.* Global Corruption Report 2008. Cambridge University Press, New York.
- Torres, N. (2012). Acceso a la información en Colombia: 124 anos después. Washington DC, USA. [Online] Available from: www.freedominfo.org/2012/07/acceso-a-la-informacion-encolombia-124-anos-despues/2013. [Accessed May, 2013].
- UNDP (2011). United Nations Development Programme. *Fighting Corruption in the Water Sector.* UNDP, New York.
- Velásquez Muñoz, C.J. (2004). Conciliación de conflictos ambientales. División de Ciencias Jurídicas de la Universidad del Norte .Revista de derecho, 21: 106–130. [Online] Available from: hdialnet.unirioja.es/servlet/articulo?codigo=2347489. [Accessed July, 2013].
- Vleugels, R. (2009). Overview of all 90 FOIAs . September 2009. [Online] Available from: www. access-info.org/documents/Fringe_Special_-_90_FOIAs_-_sep_7_20091_resource.pdf. [Accessed October, 2013].
- Warner, J. (2005). Multi-Stakeholder Platform: integrating society in water resources management?. *Ambiente e Sociedade*, 8: 1–19.

- Wester, P., Scott, C.A. & Burton, M. (2005). River basin closure and institutional change in Mexico's Lerma Chapala Basin. In: Svendsen, M. (ed.). Irrigation and River Basin Management: Options for Governance and Institutions. CABI Publishing, Wallingford.
- Wolf, A.T., Yoffe, S. & Giordano, M. (2003). International Waters: identifying basins at risk. Water Policy, 5 (1): 29–60.
- World Bank (2010). *Development and Climate Change*. The World Bank, Washington DC. World Development Report 2010.
- Yoffe, S., Wolf, A.T. & Giordano, M. (2003). Conflict and Cooperation Over International Freshwater Resources: indicators of basins at risk. *Journal of the American Water Resources* Association, 39(5): 1109–1126.
- Zhouri, A. & Oliveira, R. (2007). Desenvolvimento, conflitos sociais e viol ência no Brasil rural: o caso das usinas hidroelétricas. *Ambiente e Sociedade*, 10: 119–135.
- Zibechi, R. (2006). Movimientos sociales: nuevos escenarios y desafíos inéditos. OSAL, Observatorio Social de América Latina (Año VII no. 21). Buenos Aires, Argentina: CLACSO (Consejo Latinoamericano de Ciencias Sociales).