Chapter 15
Inequalities and Conflict: Water in Latin American Cities

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15.1 Water and Conflict in Latin America

In 2001, the United Nations announced eight Millennium Development Goals, one of which was to reduce by half the number of people without access to drinking water and a sanitation system by 2015. In this regard, considerable progress has been made in Latin American cities. In spite of substantial demographic growth, rates of access to salubrious water sources rose from 95 % to 97 % between 1990 and 2008, while rates of access to improved sanitation infrastructure increased from 81 % to 86 % (WHO and UNICEF 2010). Although these figures are high in comparison with other regions around the world, there are marked differences between individual countries and cities. Generally speaking, it is estimated that approximately 100 million people still do not have access to drinking water (Inter-American Development Bank 2010). Furthermore, merely because a distribution system exists does not mean the service it provides is either continuous or of a constantly high quality. A large number of distribution systems are in a poor state of repair and the overall quality and upkeep of the service can best be described as mediocre (Jordán and Martínez 2010). Moreover, due to the difficulties involved in providing a service to people living in isolated, hard-to-reach areas on the outskirts of cities, progress has slowed over the last few years (Inter-American Development Bank 2010). In reality, universal access to water is an eminently complex, long-term problem whose facets must be understood if success is ultimately to be achieved (United Nations 2009).

The situation is characterized by a number of paradoxes. For example, within individual cities, and often within individual neighborhoods, some people have access to seemingly limitless quantities of drinking water as well as private swimming pools, while others are subject to drastic rationing. Furthermore, while

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the public water management sector generally loses money, private enterprises specializing in the field, be they local or international, often make large profits. In the 1990s, the privatization of water services was presented as a universal solution to the age-old problem of ensuring access to water for all.

But privatization generated conflicts and encouraged the formation of social movements in a number of countries in Latin America, triggering a series of veritable water wars. Water conflicts are noticeable in all Latin American cities. Local conflicts occur in thousands of cities on a day-to-day basis, whereas national conflicts are most clearly expressed during pre-election political campaigns. In the international media, the conflicts opposing foreign water companies and national governments mainly took place in Argentina and Bolivia. Such debates, polemics, and conflicts about water reveal the presence of social forces in interaction with power systems. Moreover, such conflicts represent a necessary stage in the construction—marked by errors, failures, and successes—of more socially equitable water projects shared by the whole community. There is no miraculous general model capable of resolving the question of universal access to water, a question which, in effect, is characterized by transformations occurring over dozens of years and encompasses social inequalities and the conditions of their production and reproduction. More precisely, it is a question that highlights the fact that water management not only depends on the technical, financial, and political choices of managers, but also, and more fundamentally, on global social choices made by a variety of actors linked to each other by power relations. Relations between social classes thus have a direct impact on water management. The spatial fragmentation of Latin American cities, a product of their colonial past, can be seen as both the reflection and the cause of inequalities in access to water.

15.2 The Evolution of Academic Approaches to Water

In the 1960s and 1970s, although not yet a field of research in its own right, the issue of water distribution in Latin American cities began to appear in studies about housing and social movements. Later, many authors focused on public services (Coing 1995; Jaramillo 1995; Cuervo 1996) and analyses of technical networks (Dupuy 1987). Initially, with the exception of certain specific cases, the question of social conflicts received little attention. Some authors concentrated on historical and cultural evolutions, the water crisis, and political and social issues, but, again, they tended to take a monographic approach. Studies mainly focused on large cities, particularly on capitals such as Mexico City, São Paulo, and Buenos Aires. In the 1990s, an increasing number of international comparative analyses were published, focusing on the "exportation of the French model" and on globalization (Schneier-Madanes and de Gouvello 2003). The context of structural adjustments imposed by the major financial institutions and the emergence of environmental questions encouraged scholars to consider water from both an economic and ecological perspective.

A new field of research gradually developed, influenced by the increasing number of public services that were undergoing privatization and by the success of publications on networks. Many researchers, their viewpoints largely defined by the disciplines in which they worked and the institutions that employed them, focused on governance, decentralization, transformations in funding mechanisms, and the respective roles of the public and private sectors. A number of scholars associated with the World Bank (Idelovitch and Ringskog 1995), many of them economists, believed in the possibility of developing a universal model of urban water management and posited that international comparisons had to be made to understand general processes (Riviera 1996). Their approach was underpinned by a conviction that water management should be rational. They took the view that water was a commodity and that, as in any business selling commodities, the books should be balanced. Consequently, they argued that massive subsidies no longer should be handed out and that water no longer should be supplied for free or at unfeasibly low prices.

Furthermore, the input of international experts and professionals working in the private sector was considered indispensable in terms of increasing efficiency. The global context was characterized by the emergence of international water coalitions working to reconcile environmental concerns with development in an approach that some commentators have described as "green neoliberalism" (Goldman 2007). Those networks, whose membership is made up of experts, donors, and decision makers, have organized major international conferences.

The privatization of water services in Latin America has given rise to heated scholarly debate, much of it fueled by political and ideological presuppositions. A substantially negative reaction has emerged on the part of public opinion, politicians, academics, and association-based activists (Petrella 2009; Barkin 2005; Balanyá et al. 2005; Bell 2009) denouncing the failure of privatizations and listing its causes: excessive prices, corruption, abuse of power by private groups, a failure to take into account the needs of poorer members of society, mass layoffs, etc. On the other hand, a number of researchers close to the World Bank (Spiller and Savedoff 1999; Chong and López-de-Silanes 2005; Chong 2008) have highlighted the predominantly positive aspects of these changes: increased financial profitability, a boost in productivity, and improvement in the quality of services. Yet other authors, associated with the International Monetary Fund (IMF), have drawn attention to social inequalities and insisted on the notion that, far from being strictly financial in nature, the problem is largely one of political will (Camdessus 2003). The question of whether the process of privatization has positive effects in terms of access to water for all, and, more generally, on the living conditions and well-being of the poorest sections of society has not been resolved. Quantitative indicators can be used to argue that improvements in the quality of the service have led to increased levels of health (Galiani et al. 2008). But a more qualitative, sociological approach clearly reveals that privatization is not in itself an essential factor of change; indeed, a "pro-poor" approach can be applied to develop technical solutions and provide adequate public governance (Castro 2007; Laurie 2007). Thus, broadly speaking, a comparison can be made between a water management

model designed by economists and engineers on one hand and, on the other, societies in which practices and representations are based on other logics that can be neither acknowledged nor incorporated into the model because they are too complex and unpredictable.

Beyond this scholarly controversy, the fundamental question is not whether water should be managed by the public or private sectors, but whether a social consensus will emerge about making access to water a genuine social priority (Budds and McGranahan 2003). In terms of water management, the private sector serves a very small minority in Latin America (United Nations 2009) and clashes between scientific and ideological positions regarding the issue are relatively frequent. Conflicts associated with water gave rise to an abundant literature in the first decade of the new millennium. In Bolivia, the Cochabamba Water War in 2000 became the global symbol of resistance to privatization. This conflict began when the national government signed a contract with international companies to improve water access. As a consequence, the cost of water increased and the people of Cochabamba refused to pay, arguing they didn't want foreigners to financially profit on something as vital as water. After several months of violent street protests, the government had to cancel the contract.

The case prompted innumerable scholarly, journalistic, and activist books, articles, and reports. But 8 years after the contract with the private companies was terminated, public water management had not produced substantial improvements in the service (Shultz 2009).[1] It should be added that analyses of disputes about water have revealed a lack of universally accessible, objective information (de Gouvello and Fournier 2002). Such analyses also demonstrate the need for at least some degree of social monitoring and the impossibility of effective reform without consulting and receiving approval from local people (Sánchez Gomez and Terhorst 2005).

Legal reform is another field that has generated a substantial amount of research. Indeed, a good deal of legislation on water has been passed in a number of countries. Much of this new legislation serves to clarify and redefine the responsibilities of various actors and geographical management scales. For example, the recently amended Uruguayan Constitution now states that the right of access to water is a fundamental human right. In Venezuela, it is now illegal to delegate water services to private companies. At the international level, there is no legally recognized right of access to water, but the public health threat posed by urban water shortages is discussed with ever greater frequency in international forums and water is increasingly considered a heritage shared by humanity.[2] More recent research has underlined the efficacy of public-public partnerships (PUPs) rather than the more well-known public-private partnerships (PPPs). The idea is to establish joint ventures involving public bodies with a view to sharing expertise

[1] Another somewhat similar case illustrating the failure of privatization, which has been the object of a good deal of research, is the one of Buenos Aires (see Chaps. 8 and 16).

[2] See Chap. 2.

about solidarity and mutual aid rather than economic profit (Hall et al. 2009). Efforts are thus made to demonstrate that water services based on the notion of social progress can be run rationally and efficiently without necessarily having recourse to the private sector. Furthermore, an increasing number of authors are focusing on the multiple facets of the water question (technical, legal, economic, social, cultural, etc.) to elaborate a systemic, integral vision that takes into account the issue of social equity.

15.3 The Inherent Difficulty of Reapportioning Power

For social geographers, water is both a spatial and social object: a resource whose unequal distribution in space and between social classes—the subject of permanent arbitrages—reflects both the causes and consequences of social inequality (Fournier 2001). The particularity of this approach is that it considers geographical space to be first and foremost a social construct reflecting power relations within society. In this regard, priority is accorded to identifying actors and their power to transform or perpetuate geographical spaces, giving material expression to the state of social relations. Moreover, the issue of water in Latin American cities also has been interpreted from a Marxian point of view, which insists on relationships of domination (Jaramillo 1995; Petrella 2009; Swyngedouw 2004) as well as from the perspective of what is increasingly referred to as the "New Water Culture" (Arrojo Agudo et al. 2005). At the same time, the theme of gender and the role of women in elaborating innovative long-term solutions to water management has gradually become more central (Bennett et al. 2005); indeed, women are often the first to feel the effects of a lack of water, as they are responsible for running the household.

Attempts to reform water management by applying various forms of privatization—concession or total privatization—have been characterized by partial failure.[3] Many reasons exist for this, and they will not be listed here. But an essential explanation is the failure to take into account the human factor and the possibility of transforming the societies under consideration. The relevance of social geography is, precisely, to be found in the contribution made by empirical field studies in contact with the real world. Information derived from such studies makes it possible to put the claims inherent in economic and technical models constructed from on high into perspective and provides a necessary bottom-up view of society. Furthermore, the highly strategic question of water pricing is complex and difficult for members of the public to grasp. Many people in working class communities in Latin America are convinced that water falls from the sky, flowing through the system by simple gravity, and comes out of the tap naturally. Typically, the considerable efforts required for distributing water, the techniques, skills, and expertise applied, and, above all, the ever-increasing costs associated with treating

[3] See Chap. 6.

Fig. 15.1 Water tanks on the roof of buildings in Argentina, a sign of a lack of a water network. Names of candidates for elections are written on the walls (Source: Author)

wastewater, are not taken into account. A refusal to pay high prices for water can thus be seen, at least to some degree, as the rejection of a process that is not understood (de Gouvello and Fournier 2002).

15.3.1 Water as a Political Tool

Beyond this lack of understanding among engineers, economists, and managers and between local people and consumers, water in Latin American countries carries very strong social overtones (Schneier-Madanes 2005). In working class communities on the outskirts of major cities, politicians and electoral candidates are wont to say: "Vote for me and I will give you water" (Fig. 15.1).

Delegating water services to a private company radically alters the rules of political clientelism. Theoretically, in the delegation model, an independent regulatory body would hold regular meetings to avert conflict and maintain consensus. But in real life, while politicians are not entirely sidelined, decisions about technical and financial matters can partially escape them, an observation that also holds true for many other countries around the world. In fact, it seems that it is by no means easy to alter approaches to water management rapidly because such a process would involve redefining the roles and degree of power wielded by the various actors capable, or otherwise, of changing society as a whole. From this point of view, reform would presuppose a reduction in the power of certain actors. Generally speaking, it is difficult to deprive someone of power, especially of great power they have enjoyed for a long period of time.

Logically enough, in electoral campaigns, water continues to be used as a major political tool employed either to win elections or gain ground on the government. Examples abound. One is the Bolivian presidential election of 1997 between Hugo Banzer and Gonzalo Sánchez de Lozada. Banzer proposed an extensive project designed to definitively solve the water problem without, however, having the guaranteed and credible financial resources to do so. Sánchez de Lozada, who lost the election, supported a less ambitious, financially more realistic project that was electorally less convincing.

More recently, in Argentina, former President Nestor Kirchner also used the question of water to strictly political ends. His "Agua más trabajo" (Water + Work) plan was a participative management operation involving the Argentine government and Aguas Argentinas, a private company run by the French group Suez Environnement (Botton 2007). The plan consisted of setting up cooperatives to extend water networks in socially deprived neighborhoods. Partnerships were set up between local residents, who carried out the building work; the municipality, which directed it; and the Argentine state, which coordinated and financed the project. More than a sustainable solution, this program enabled the Argentine government to appeal to voters. Similarly, in Venezuela, President Hugo Chavez has promoted a Bolivarian revolution in the water sector, notably by setting up local technical councils directly controlled by the central government, thus short-circuiting traditional intermediary bodies (Fournier 2010).

The links between power, politics, and water management are strong and cannot be radically modified in the short term. The extreme positions expressed in Bolivia's water conflicts suggest that political and ideological issues sometimes override pragmatic concerns and, in certain cases, common sense approaches. In reality, the question is so socially sensitive because it implies major daily constraints for members of the poorer sections of society who are distrustful of solutions imposed from above.

15.3.2 "Water Is Not a Commodity"

Alter-globalization movements, activists opposed to the globalization model, and associations promoting a new culture of water have interpreted the termination of contracts as a victory in their more wide-ranging struggle against neoliberalism (Balanyá et al. 2005). The creation of international networks linking such associations has undeniably given them more power and made them more visible. According to these actors, who insist that "water is not a commodity," the social aspect of the question of access to water has not been sufficiently highlighted or discussed (Petrella 2009). Furthermore, they have encouraged the development of an international approach to water in which the resource is seen as a common heritage in the sense outlined on a number of occasions by the Porto Alegre Forum since 2002.[4]

[4] The World Social Forum (Porto Alegre Forum) has championed the idea of water as a human right. Water can be considered part of the global commons, shared with all of the world's people and life forms, and as a collective asset and heritage belonging to all of mankind.

This approach has done much to spread awareness of the need to better understand and share the points of view of local society. These activist networks have elaborated a number of legitimate critiques of the risks involved in privatization and the damage occasionally caused by it. Nevertheless, their critiques sometimes have been polemical, negative, or relentlessly systematic and, as such, bereft of any constructive content. Today in Bolivia and Argentina, some people claim to have won the water battle and defeated the neo-colonialism of the major European and North American capitalist groups (Olivera and Lewis 2004). The attitude can be seen as positive in that it bears witness to the fact that the water question has been appropriated by local people. But maintaining a status quo by means of a traditional management system is not in itself a solution (Sánchez Gomez and Terhorst 2005). In spite of intense conflicts, considerable financial losses, and interminable polemics, the process followed for the last 15 years or so can, in spite of everything, be viewed positively in terms of the consolidation of local democracy and the emergence of genuine counterpowers capable of questioning global models. Lastly, technical performances, expertise, experiences in the field of management, and, in general, the positive aspects of private enterprises have sometimes been underestimated. More generally, it can be argued that the lack of serious public debate and the scarcity of shared objective information make it impossible to develop more socially just water management approaches adapted to local specificities.

Certainly, there are exceptions to this rule and success stories do exist. In Bogotá, for example, a relatively original system of mixed subsidies makes it possible to charge more for water in rich neighborhoods to subsidize the service in poorer ones. Although characterized by a number of contradictions, the system has enjoyed a degree of success. Elsewhere, the gradual introduction of partial privatization in Mexico City has produced encouraging results (Marañon Pimentel 2004). Nevertheless, major challenges lie ahead in terms of democratizing access to water and rationalizing its use (De Alba 2005; Tortajada 2006; Barkin 2007), while health problems associated with water persist (Marañon Pimentel 2009). In Rio de Janeiro, while a number of adequate one-off initiatives have been taken, no global vision has yet emerged (Britto 2003; Vargas 2005).

The case of Santiago de Chile, where the water service has been universal since 1995, notably thanks to a sustained policy in favor of social housing (Pflieger 2008), provides a counterexample. The approach is consonant with a global choice on the part of Chilean society, initially imposed by General Pinochet's dictatorial regime, which, in the 1970s, set up a publicly owned limited company tasked with managing water services while remaining financially autonomous. After the return of democracy, the new government decided to continue the policy (Figueroa 2005). In 1999, the government privatized the water supply companies. The privatization years thus demonstrate that while there is no global panacea applicable in all countries, concrete solutions have been applied on a more local basis. To get some idea of how approaches could be developed to make water management more efficient, thereby contributing to a reduction of social inequalities in Latin America, the history of water should also be examined.

15.3.3 Water as a Means of Integration and Exclusion: The Colonial Heritage

The cities founded by the colonial regimes in Latin America are characterized by their geometrical layouts. Codified in the Law of the Indies of 1573, urbanization followed a colonial model on the grand scale, applied to the entire continent. Depending on their place of birth, social role, and skin color, individuals had a status defining their place within the colonial hierarchy. Colonial cities were designed for two purposes: to integrate members of the indigenous population to control them more effectively and to exclude them to affirm the superiority of the Spanish colonists. Water distribution was central to the implementation of such discriminatory practices. For example, in Puebla, Mexico, the uses to which water was put were dictated by the social position of the user; water considered to be of the highest quality was reserved for the use of Spanish colonists, while water thought to be of a lower quality was consumed by the Indian population (Fournier 2003).

During this period, the founding of cities, the process of Christianization, the pacification of the Indians, and water management were all part of the same logic of control. In most cases, local water sources initially were channeled by small canals built and controlled by monks. Locals took their water from these canals or from fountains in the convents in the center of the city. Access to water systematically involved the Catholic Church: water was a gift from God. Later, the system was improved thanks to the construction, on higher ground, of drinking water reservoirs that supplied public fountains. The reservoirs were closely guarded to ensure that water was not stolen through illegally constructed pipelines or other means. A large number of Indians saw to the upkeep of the fountains and, above all, transported water to people's homes in wooden barrels or jars. Indigenous people lived on the outskirts of the cities, where fountains were nonexistent. Until major improvements were made in the late nineteenth and early twentieth centuries, only convents, churches, hospitals, prisons, and a few other public buildings provided systematic access to water in many cities. The integration and exclusion of colonized populations were dependent on an entirely discriminatory system of water distribution.

Latin America as a whole is characterized by similar situations in which water, historically the object of conflicts and negotiations, permanently conditions the evolution of society. In Guayaquil, Ecuador, investments and urban water distribution policies are constantly monitored by a middle class that makes sure its own interests come before any ambitions to develop universal access (Swyngedouw 2004). In Peru, water was a vital factor in pre-colonial and colonial times, and this remains true in the post-colonial era (Trawick 2003). In reality, power is always, at one time or another, dependent on how water is controlled. Power in society and power over water are intrinsically interdependent. All Latin American countries achieved independence long ago and many of them are still marked by the influence of revolutionary movements that sought to achieve greater social justice.

However, the colonial heritage has not been entirely effaced. Water carriers, or aguadores, are still to be found, in one form or another, in many countries, occupying a relatively lowly position in society. Water continues to be sold and stolen and causes disputes in local neighborhoods and even on individual streets.

In Latin American cities today, water provides a reflection of inequality and segregation. Systems of access to water vary from one neighborhood to another, depending on the social classes that inhabit them. In poorer neighborhoods, where living conditions are precarious, women wait at home for water to be distributed in trucks. Sometimes dependent on the goodwill of the drivers, they are forced to get up very early in the morning to wash clothes and crockery. Indeed, in many neighborhoods, especially those located on the outskirts of major cities, the problem of water primarily affects women who have to struggle to obtain it. For those fortunate enough to enjoy a higher standard of living, the resource is never an issue. Having unlimited access to water, a swimming pool, money, and land while possessing extensive social networks and social influence means occupying a privileged or dominant social position. On the other hand, lacking a water tap, not owning a home, and being unable to find work in the formal labor market are both the signs and the symptoms of social exclusion and a marginal position in society.

Generally speaking, better-off members of society, mindful of health issues, continually monitor the quality of the water they consume, introducing new controls and sanitary measures. The poorest sectors of society have neither the resources nor the knowledge to apply such an approach, while the middle class—a category that is difficult to define—displays a broad range of intermediary practices. The absence of a social pact, in which water is universally accessible, militates against a socially and geographically equitable distribution of the resource.

15.4 Socio-Spatial Fragmentation and Power Relations

In the cities of Latin America, inequalities in terms of access to water often are explained by the existence of quantitative, technical, economic, political, and geopolitical problems. Although such explanations are valid, power relations between social groups are also of fundamental importance. More than the problem of quantity, the question of the equitable distribution of water between all members of society is at issue. This socio-spatial division is a de facto obstacle to the elaboration of a more egalitarian system.

Moreover, countries that currently have a system of universal access, for example in Europe, have benefitted from specific historical conditions: in the late nineteenth century, the introduction of universal water services was linked more closely to considerations of hygiene aimed at protecting the bourgeoisie and the dominant sectors of society than to satisfying concerns associated with social equity. At the time, it was technically impossible to do otherwise. Furthermore, today, in those same countries, substantial numbers of less well-off people are

unable to pay their water bills and are forced to rely on social services to do so in their stead.

For about 20 years, attempts to impose top-down reforms on water management have, while causing a number of problems, improved the overall situation, at least to some degree. All actors now admit that water is not a commodity or commercial service like any other because it is essential to human survival. However, if water has no price, it certainly has a cost. Inevitably, consumers will have to pay for the service—even if it is only a modest sum—if the erroneous idea of unlimited water supplies is to be dispensed with. Moreover, it would seem that the water question must be depoliticized in that it is too often used as a tool in electoral campaigns and an instrument in the field of political clientelism. Social issues associated with water demand bottom-up solutions: social compromises, a dialogue between social classes, modifications of relations between social actors, and the diffusion of objective information shared by as many people as possible, or, in other words, a democratization of the issues linked to water.

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