

URBAN POVERTY AND WATER MANAGEMENT IN MEXICO

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Since the 1950s, Mexico —like other Latin American countries— has experienced an accelerated rhythm of urban growth accompanied by an increase in urban poverty (Arriagada, 2000). The country became urbanized in a period of only 50 years as, from 1950 to 2000, the urban population² grew from just 37% to 75% of the national total (CONAPO, 1993; INEGI, 2000). At the end of the 90s, 47% of this urban population was classified as “poor”; that is, almost half of the inhabitants of the cities had neither a steady job nor an assured source of alimentation (Boltvinik, 1999).³ This process of urban growth combined with social deterioration has been called the “urbanization of poverty” or “popular urbanization”; a term that also expresses the social-spatial segregation of cities (Coulomb, 1992; Duhau, 1998; Arriagada, 2000; Clichevsky, 2000).

In addition, the great majority of the urban poor in Mexico live in overcrowded conditions in precarious dwellings (made of poor quality materials or waste materials) that lack basic services and urban infrastructure (such as potable water, sewers and paved streets). To give just one example, in the poor areas of Mexico City, the average amount of water provided per capita is less than 50 liters per day. In residential areas, in contrast, the figure is close to 500 liters per day (Schteingart, 1989 and 1997).

In this context, my current research seeks to analyze the social tensions and disputes that have arise in cities in Mexico as a consequence of the “urbanization of poverty”. More specifically, this paper deals with conflicts over water in poor areas or squatter settlements⁴ of cities that occurred because water constitutes an increasingly scarce and strategic resource in cities (Anton, 1996).

These “settlements” are inhabited by low-income families and are normally “irregular”, in the sense that residents lack titles or deeds to their lots and/or because land is seized through “invasions”. At first, they are “irregulars or illegals” in two senses: a) because they are established on the edges of the city proper, and, b) because they are not officially incorporated into the city structure and so lack basic urban services including water, electricity, sewers, paved streets, etc.

For this reason, water conflicts are analyzed according to two dimensions:

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² Mexico’s official criterion for defining the urban population is a demographic one, as any locality with a population above 2,500 is considered “urban”. However, this criterion (applied for the past thirty years), actually overestimates the urban population. If we consider as “urban” any locality with more than 15,000 inhabitants, then in the year 2000 the urban population will be 61% of the national total, and not 75%, as official estimates indicate. Ver figura 1.

³ El mismo autor cita un estudio realizado por INEGI-CEPAL (1993) en donde en 1992, el 37% de la población urbana era considerada como pobre. Ver figura 2.

⁴ The term “squatter settlements” is suggested as an equivalent to *asentamientos populares* in Spanish, to refer to the new areas of colonization that tend to grow up around cities as part of the “urbanization of poverty”.

1.- Urban conflicts over water that lead to collective action: It is principally the State and the urban poor that are involved in these kinds of conflicts. They range from spontaneous collective acts and isolated protests on the part of the population (with no organizational base) against the deficient water service provided by the authorities, to [organized] urban movements in which social organizations propose novel ways of relating to the State and new procedures for administering urban services (water management).

2.- Urban conflicts over water that do not lead to collective action: These are conflicts that arise due to the lack of water policies or to changes in such policies, as well as to the political manipulation of this resource for other ends. The motive behind such disputes is to gain control over water and then to use this control as a base for local power. In disputes of this type it is not only the State and the urban poor who participate but also other actors, such as political parties and rural poor. This category includes conflicts that emerge in the formative stages of squatter settlements (when the State is not yet involved in providing services such as water) and others that occur when water is eventually introduced and new forms of water management are proposed (including privatization, co-management and self-management).

THE URBANIZATION OF POVERTY AND URBAN STRUGGLES

The urbanization of poverty (“*urbanización popular*”) refers to the social process through which poor people in the cities gain access to land, housing and urban services, including water (Duhau, 1998). It is characterized by features such as the “irregular” (illegal) nature of access to land (land invasions or settlements established in zones not apt for urban growth), the construction of precarious dwellings (do-it-yourself construction, use of low-quality materials) and social participation in the introduction of services (for example, providing unpaid labor).

The irregular situation of the system of land tenure precludes such popular (squatter) settlements from receiving urban services and infrastructure from the State. Nor is the regularization of such settlements a guarantee, but rather only one precondition for obtaining them (Duhau, 1991). Given this, such settlements can exist for several years without receiving urban services.

It is important to clarify that by “urban services” I am referring to those social-spatial elements that serve a diverse group of actors and make possible the development of production, circulation and consumption processes in a city. These services carry with them associated social relations in which the State and both the private and social sectors participate (Lojkin, 1979; Pradilla, 1984; Coing, 1987). Among these services are included: access roads, paved streets, urban transportation, a water-supply system, sewers, solid waste removal, electricity, schools, health centers and parks and recreation areas, among others.

Given its character as a vital liquid, potable water is a fundamental urban service in cities. This means that while many other urban services may not be indispensable, water is absolutely essential for survival. In addition, water is becoming an ever-scarcer resource (especially in cities experiencing rapid urban growth), which means that it is now turning into a strategic resource as well (Anton, 1996). The lack of water is a necessary —though not a sufficient— condition for the emergence of urban protests and struggles; for which certain sociopolitical conditions are required, such as pre-existing groups that make possible the participation of the urban poor in the defense of their habitat.

Squatter settlements, then, must go through a long process before the State regularizes their claims to land, grants them official recognition and authorizes urban services. This means that these settlements play a directing role in the negotiation of problems within the city and that the collective actions undertaken by the inhabitants of such settlements are focused upon getting the State to act in order to resolve them. This, in turn, leads the urban poor to “organize themselves” right from the initial phases of the formation of the squatter settlement (by participating in groups of land invaders or of people who are petitioning for land), until their consolidation (the realization of community work projects to introduce urban services or infrastructure). Thus, the so-called popular urbanization (or the “urbanization of poverty”) implies an enormous effort and expenditure of energy on the part of poor people in the cities, as they have to invest years in mobilizations and negotiations, make contributions in cash and kind, undertake community work projects and submit themselves to the economic and political interests and ambitions of their leaders (Schteingart, 1990; Coulomb, 1992; Nuñez, 1990).

In this sense, “popular urbanization” is a political process through which the State establishes a patron-client kind of relationship with the urban poor in order to relieve social pressures and win political legitimacy (Montaño, 1976). The role of political intermediaries or urban leaders consists in maintaining political control over the poor—seen as masses or groups that provide electoral support—in exchange for which they obtain the regularization of their lots (land) and the provision of urban services. These individuals exercise power and dominion in such areas through authoritarian and antidemocratic practices, and they do not allow the poor to participate in decision-making. Also, these conditions made it possible for local “strongmen” (*caciques*, political “bosses”) to appear, who maintained control through acts of corruption and violence against the urban poor (Montaño, 1976).

The patron-client kind of relationship was extremely effective, especially in the early decades of the expansion of urbanization in Mexico, from the 1940s to the 60s. Since the mid-seventies, however, innumerable protest movements and urban struggles that escaped from State control have appeared, reflecting both old and new conflicts in Mexican cities.

According to Ramírez-Sáiz and Navarro (1986), various reasons explain the ascendance of urban movements in Mexico during the decades of 1970 and 1980:

In economic terms, crises reduced the margins of State action for resolving problems linked to land tenure and the authorization of urban infrastructure and services. While the housing policies of the 1970s benefited population centers with a stable employment situation, the majority of the urban poor were excluded. This was reflected later in Mexico City when the earthquakes of 1985 struck and thousands of people were left homeless as a result of the non-existent or inadequate conditions of security in the neighborhoods and buildings where they lived.

In political terms, the corruption of urban leaders (linked to the *Institutional Revolutionary Party*, or “PRI”), and the rigid, antidemocratic structure of urban organizations (controlled by the State), helped lead the residents of such settlements to look for other, more independent, forms of participation. In addition, changes in State urban policies in some cases led to situations of conflict as, for example, when the policy of regularizing land tenure created tensions among *ejidatarios*, residents and land developers.

External and national factors, such as the triumph of the Cuban Revolution and the 1968 Student Movement in Mexico, influenced the creation of the conditions for the

emergence of independent urban organizations. Despite the expansion of such groups, however, they remained only a minority in relation to the ample contingents (or urban masses) that controlled the urban organizations linked to the PRI (Montaño, 1976; Legorreta 1986; Núñez, 1990).

It must be added to this (Núñez, 1990) that several of the independent struggles of the inhabitants (urban movements) emerged not so much because of the massification of urban poverty, but rather due to the **pre-existence of groups** that participated in political, cultural and religious activities in such settlements (including university students, ecclesiastical base communities and left-wing political organizations).

The strategy of these urban movements was based on the participation of the residents in public life —marches, “sit-ins”, office takeovers— in order to generate social pressure and constitute themselves as actors confronting the State. Their posture was not only to contest but also to be propositive, by elaborating self-administered projects for popular housing and the obtaining of services.

In this sense, some urban movements conjointly led to a different relationship with the State: the urban poor no longer acted as political “clienteles” but, rather, as a collective actor that proposed an alternative model of popular urbanization, new forms of urban administration and a greater degree of democratization in decision-making.

The central demands of these urban movements concerned land tenure, housing shortages and the deficient provision of urban services in squatter settlements (Duhau, 1998). The case of Mexico City was the best documented, owing to the magnitude of its urban problems and the emergence of independent urban organizations; though cases of urban movements were also documented in other cities, such as Chihuahua, Monterrey, Durango, Cuernavaca and Guadalajara (Orozco, 1976; Montaño, 1976; Mesa, 1984; Regalado, 1986).

A few studies have analyzed struggles for access to urban services such as potable water in the cities (Arau, 1987; Bennet, 1997; Avila, 1999 and 2001). In the Mexico City case, the origin of these struggles can be traced to the organizational experiences of the earlier fight to regularize land. There, the urban and rural poor united to demand that the State provide them with sufficient water and an adequate distribution system (Arau, 1987).

HYDROPOLITICS AND CONFLICTS OVER WATER

The concept of *hydropolitics* is a useful one for elaborating our notion of conflicts over water. According to Peter Gleick (1994), this term was basically adapted from the concept of “geopolitics”, which refers to the role played by natural resources as objectives of military action when they constitute defining factors of a nation’s power. Though it is true that in the area of international security the center of attention has always been non-renewable resources such as oil, water can also be a focal point according to the degree to which it is a source of economic and political power. This means that the factors that make water a likely source of strategic rivalry are: a) the degree of scarcity; b) the extent to which supplies are shared among more than one region or country; c) the relative power of the nations involved; and d) limitations on access to alternative sources of supply.

Rene Maury (1998) defines the concept of *hydropolitics* as the set of critical situations that emerge due to the absence of water policies or, in many cases, due to changes in existing ones. This, in turn, leads to the development of conflicts and tensions concerning the use, control and distribution of this resource and the deterioration of the

quality or quantity of water. He cautions, however, that *hydropolitics* is not to be confused with “water policies”, as the latter refers to State involvement in water management (from legislation to development projects).

In this sense, we can say that **water is a political resource**, the control over which constitutes a means of exercising power and dominion over certain actors in a political arena (a field where different actors participate). Given this, it is necessary to study conflicts related to water from a political perspective, because what is at stake includes public objectives and divergent interests.

In general terms, we define **conflicts over water** as tensions that arise between two or more social actors: a) over the control of a scarce resource; b) over unequal access and/or distribution; c) over changes in values and perceptions of scarcity; and d) due to the incompatibility of interests where no water policy or management system exists, or where changes are made in existing ones (Avila, 2001).

When speaking of conflicts over water, however, it is also necessary to include a spatial element, because each level of analysis leads us to study different social and political relationships and processes. Clearly, international conflicts between Arabs and Israelis over water are not comparable to the local conflicts that emerge in poor neighborhoods of Latin American countries.

The first level of spatial analysis, then, is **international**, where we find political disputes over the control of water and its deterioration in hydrological basins shared by two or more nations. These conflicts can arise due to the incompatibility of different legislation on water or the environment, due to violations of such legislation, or due to its absence. Alternatively, they may arise in relation to other disputes (religious or ethnic) in which water is utilized as a political resource: a means of achieving different objectives or of exercising power and dominion over the other actor involved.

A second level of political disputes concerns the struggle to control sources of supply in a particular **region**. These may arise, for example, in the context of the dominant position —economic or political— that a city may occupy with respect to the surrounding countryside. In this case, rural communities may find themselves subordinated to urban interests, thereby losing their autonomy and their ability to oppose the exploitation of the water source. Conflict appears when there is local (rural) opposition to such sources of water being exploited by the city, or when problems of water pollution arise because cities and industry dump their untreated waste into rivers or other bodies of water, deteriorating the quality of the water that rural dwellers use for irrigation or exploit by fishing. Above all, tension mounts among peasants, fishermen, ecological groups, industrialists and local and state authorities.

A third level of political conflict over water concerns **cities**, because they are places where there is tension among several different social actors (industrialists, merchants, land developers, high-income groups, the urban poor) over the use and distribution of that resource. In this space, a wide range of interests and values come together and this can translate into distinct, competing projects for the city that may generate disputes among social groups over the management (public, private or social) of this strategic resource. As a consequence, differential control of water by one or more social groups constitutes a form of power and dominion over the rest of the population by restricting its access to the resource.

The fourth level of political disputes occurs in the city itself, especially at the **local level**; that is, in poor neighborhoods where water —as a scarce resource— may be utilized

by certain actors as a means of exercising political control. Such individuals act as political intermediaries who depend on a clientelist structure (the relationship between the State and the urban poor), in which water becomes a political resource that allows them to exercise authority over a given territory.

This level includes political disputes over access to water and the social management of this essential service (Arau, 1987; Bennet, 1997). Many urban struggles are led by social organizations that look to break down the patron-client relationships and structures of power that exist at the local level and so generate conflict and tension between the State and local groups. This is because the dispute not only involves the provision of services, but also the management and social control of a strategic resource. From the perspective of the State, it is critically important to impede innovative forms of social management and so weaken the autonomy, power and influence exercised by social organizations (urban movements) in a given space.

It is important to point out that social actors who participate in **other arenas and social dramas** (Turner, 1974) may also intervene in conflicts over water. Thus, when the channels for resolving other conflicts (be they ethnic, religious, political, electoral, rural-urban, etc.), are closed, they may overlap with conflicts over water. By this we mean that the arena where struggles over water take place may be utilized for political purposes, when water is intertwined with other conflicts or overlaps them. In this way, conflicts over water can become reflections or projections of other disputes. An extreme case is when hydrological resources are used as instruments of war, as in the Middle East.

URBAN CONFLICTS OVER WATER IN SQUATTER SETTLEMENTS

For the purposes of this study, we shall focus attention on the local level of analysis of conflicts over water; that is, the level of neighborhoods or squatter settlements. This obliges us to take urban management as the arena or political field (Turner, 1974). There, conflicts over water are played out in squatter settlements, through the participation of a wide range of actors that includes the State, urban leaders, the urban poor, political parties and urban organizations, all of which represent different objectives and interests with respect to water.

It is important to clarify that urban conflicts over water do not necessarily lead to collective actions, and that disputes can —and do— exist without such actions. However, as Alberto Melucci (1999) points out, the opposite is not true; i.e., there can be no collective action without conflict. This leads us to propose the following classification (Avila, 2001):

1.- **Urban conflicts over water that lead to collective action:** here we include all those collective actions undertaken by the urban poor that are focused on the State and look to resolve the following demands:

- o **Social demands** such as the provision of urban services, or of access to existing services, in a socially segregated city.
- o **Political demands** related to the social control of an increasingly scarce and strategic resource in poor neighborhoods.
- o **Cultural demands** such as the participation of urban organizations in decision-making and water management in the city.

In all of these cases, the urban poor construct a collective identity that allows them to present a unified front in confrontations with the State, despite their internal social

heterogeneity and divergences. As a result, conflicts over water become a factor that unites the urban poor.

2.- Conflicts over water that do not lead to collective action: this category includes all the tensions and disputes that emerge in squatter settlements due to the lack of regulations or social agreements, or to the violation of existing ones. It also includes conflicts that result from gaps or deficiencies (technical, administrative) in the institutional system of water management (controlled by the State). Here, too, we find disputes among factions for the political control of water and others that arise as competition for the use of this resource intensifies with the spread of popular urbanization. These tensions tend to exacerbate differences among the urban poor in such a way that conflicts over water may actually come to divide their neighborhoods. In both cases, *hydropolitics* plays a determining role in both the development and management of such conflicts.

These divergent attitudes over water, in turn, may lead the urban poor to form alliances with other actors (political parties, rural poor) and to adopt political stances in fields of opposing forces and in the arenas where such struggles are played out. However, if there are no established channels for conflict resolution, then violence becomes an alternative; above all, given that water is an essential resource for survival. Finally, these disputes are considered “**micro-conflicts**” or **local disputes over water**, because of their diffuse, bounded character.

URBAN MOVEMENTS AND COLLECTIVE ACTION IN RELATION TO WATER

Based upon Melucci (1999), we can say that some of the preconditions necessary for collective action to be taken in relation to water in squatter settlements are as follows: the existence of a **conflict** (differential access to water) between two adversaries (the State and the urban poor); the existence of a **group** (urban organization) that shares a common perception and awareness of demands and aims (the provision of water); and that this group as such proposes a **break** in its patron-client relationship with the State (social pressure expressed through mobilizations, involvement in decision-making).

In this way, the urban poor forge a **collective identity** by recognizing and being recognized as social actors; that is, they first define themselves as a social actor and then act on the basis of that identity. They reach a stage of self-recognition that differentiates between an “us” and a “them” and present an **opposition** by participating in a matrix of forces that includes adversaries (the State, political intermediaries) as well as allies (opposition political parties, social organizations). Finally, they defend as a **totality** an alternative project for urban water management (self-management).

On the basis of this characterization of urban movements we can isolate the following collective actions in relation to water (Avila, 2001):

- a. **Collective acts related to water:** these are struggles that imply spontaneous defensive reactions on the part of the urban poor against the unequal distribution of water in the city. In most cases, they do not succeed in forming a permanent organizational structure. An example of this type of conduct is the series of urban protests that occurred in Monterrey in the seventies and eighties after water rationing was imposed in the city (Bennet, 1997).
- b. **Confrontational protest actions over water:** these are confrontational struggles or actions by organized groups among the urban poor that propose specific demands for supplying water to squatter settlements. They propose no modifications of the

“rules of the game” of urban water management, nor do they attempt to overcome their economic and political limits. Examples include mobilizations to obtain and guarantee an equitable distribution of water by the “*Pueblos y Colonias del Sur*” (“Towns and Neighborhoods of the South”) in Mexico City in the seventies (Arau, 1987), and the struggle to reduce water tariffs by the “*Movimiento Ciudadano*” (“Citizens’ Movement”) in Celaya in the nineties (Treviño, 1999).

- c. **Confrontational political actions over water:** this category includes struggles by organized groups among the urban poor that demand resolutions for the problems associated with the management of water services in squatter settlements and that further insist upon the participation of the social sector in decision-making (Ávila, 2001).
- d. **Urban movements over water:** these are struggles generated by urban organizations that, due to their degree of political development and presence, as well as their objectives and their self-management practices, propose modifications in the form of water management in the city by demanding social control of this resource as well as the decentralization of the service itself (Ávila, 2001).

Based on a review of the literature in Mexico on the topic of urban conflicts over water (Arau, 1987; Bennet, 1997; Treviño, 1999), it would appear that the majority of studies have documented situations of collective action related to water that correspond to our types a) and b); that is, spontaneous mobilizations that have little or no influence on decision-making and do not modify forms of urban water management. Their vision of the problem goes no further than the deficiencies of the urban supply system.

The principle objective of Arau’s work (1987) was not to study water conflicts, but to reconstruct the history of an urban organization. At the outset, this study documents the urban conflicts that arose at the beginning of the seventies in relation to the expropriation and regularization of land. After that, it analyzes conflicts from the end of the seventies provoked by water shortages and the unequal distribution of water, and the way in which these movements contributed to unifying the urban poor with the rural poor in a common cause. Among the contributions of this study is its demonstration of the role of struggles over water in the development of an urban movement in Mexico City; the so-called “*Movimiento Popular de Pueblos y Colonias del Sur*” (“Popular Movement of Southern Towns and Neighborhoods”).

In her work, Bennet (1997) documents a series of collective acts and confrontational actions related to water that took place in the seventies and eighties in the city of Monterrey (the third-most populous city in Mexico). These began with spontaneous actions to protest water shortages (people went to wash clothes in the city’s ornamental fountains, for example), but soon spread throughout the city, especially to other poor neighborhoods through sit-ins, building takeovers, etc. Despite their spontaneous nature and lack of an organizational base, the simple accumulation of protests was sufficient to pressure the State into improving water service by including the urban poor in a program for supplying water to the city.

In the same way, Treviño (1999) documents a series of conflicts from the city of Celaya (in central Mexico) in the early nineties that had to do with an increase in the tariffs for urban water service, in the context of the transfer of the municipal government from one political party to another. This case allows us to see the role played by the interests of political parties in the water management and the evolution of social struggles. It also

shows the impact of these struggles on the emergence of an organization called “*Movimiento Ciudadano de Celaya*” (“Celaya Citizens’ Movement”), that later became a permanent instance of urban management.

A common element in the studies by Arau (1987) and Treviño (1999) is that the collective acts taken in relation to water contributed to the formation of wider-based urban organizations. This means that water itself was a unifying element behind collective acts, not just in one neighborhood but across an entire set or block of neighborhoods (“Movement of the Towns and Neighborhoods of the South of the Valley of Mexico”) or even across an entire city (“Celaya Citizens’ Movement”).

Part of the explanation as to why struggles over water are often pursued by various neighborhoods (“block movements”) is that if a solution is proposed for only one neighborhood or settlement, then State intervention is limited due to technical and economic factors. In contrast, when demands are widened to include more neighborhoods (as in the cases mentioned above), the possibility of reaching a solution is much greater. This success, in turn, tends to give such organizations greater strength.

As Bennet (1997) has pointed out, the case from Monterrey is something of an exception. There, the collective acts of the urban poor in the face of water problems lacked an organizational base but managed to achieve their objective despite this shortcoming; in this case due to the frequency of the acts themselves and the fact that they spread throughout the city. Also important was the political climate at the time when these acts occurred: the authorization of public investment in the area of potable water.

“Confrontational political actions” (type “c”, above) and “urban movements” concerning water (type “d”), are distinguished because they introduce certain political and cultural implications into urban movements. They conceive of water as both an essential urban service and as a resource—natural and political—that should be subject to some kind of social management in which the urban poor participate (through their organizations). One example of this type of collective action was the struggle for water undertaken by the urban organization called “*Colonias Unidas del Sur, CUS*” (“United Neighborhoods of the South”) in the city of Morelia (in central-western Mexico). This movement manifested new forms of conflict in squatter settlements in the 1990s (Ávila, 2001).

Such actions of political confrontation over water were characteristic of the period in which the urban poor in Morelia demanded the introduction of urban services into squatter settlements and proposed to the State an alternative project for the administration of water. An urban movement, meanwhile, characterized the stage that followed the introduction of water services, because the organization proposed—and, in fact, carried out—a project for self-management in order to exercise social control over water and avoid the takeover of the system by the State as a means of guaranteeing supplies for the entire population (urban poor).

In addition, the collective measures taken by the urban poor in relation to problems with water came to express different demands as the urban movement matured. In the initial phases of the movement—collective acts and confrontational actions—its demands did not succeed in influencing urban management, as they only proposed solutions to the immediate urban problem (access to water), and had no greater political transcendence. In contrast, through acts of political confrontation and urban movements with respect to water, social organization proposed different kinds of relationships with the State, including self-managed services, participation in decision-making and social control of water. This meant

that their demands actually transcended the social sphere (the authorization of the service itself) and included both political demands (such as social control of water) and cultural ones (such as participation in decision-making and the defense of a scarce and valuable collective resource).

As a result, the urban organization (CUS) pressured the State to delegate or transfer part of its power, because up to that time it had exercised independent power over water (Adams, 1983). Nonetheless, this concession of power was limited and conflict-ridden: the State did not accept social control of water (self-management), but only granted allowances of water to the municipality (local government) to satisfy urban demand, as well as certain concessions to the private sector (the construction and operation of deep wells and the commercialisation of water).

Despite the fact that these changes in water legislation (that tended towards the privatization and decentralization of this service since the 1990s) did open up spaces for social participation through public and social co-management, the State granted such allowances in a discretionary manner (to politically allied groups) and never actually ceded power (to urban organizations and urban poor). In reality, the State promoted economic self-management without granting political autonomy in water administration. This meant that the decentralization of water service implied a reduced economic participation on the part of the State, as it transferred part of its functions to the social and private sectors; which would take charge of supplying the service, while the users would pay for their water at its real cost, with no subsidies or public supports. However, decentralization did not lead to the transferral of power over water, as the State maintained its regulating and normative character"; limiting itself to authorizing concessions and assigning the users (the so-called "stakeholders") rights of usufruct over water and the benefit of the service itself.

However, the social pressure exerted by the urban organization in this case (the CUS) did force the State to authorize the creation of a Local Water Board, administered and monitored by the population (urban poor). This experience with a kind of public, social co-management of water then spread to other settlements of the city. In this way, the urban movement for better water service achieved political transcendence in the management of this utility in the city of Morelia (Avila, 2001).

HYDROPOLITICS AND LOCAL WATER DISPUTES IN SQUATTER SETTLEMENTS

When water is the subject of disputes between factions and local power groups and there is no established or institutionalized management system for this utility in squatter settlements, it is transformed into a factor that tends to divide the urban poor. In these situations there is no legal or institutional framework with regards to water, but only informal regulations and social agreements that can be violated if or when a particular group or faction develops a vested interest in controlling this resource (Avila, 2001).

These circumstances can give rise to conflicts and social tensions over water that are not necessarily manifested in the form of collective action or social mobilizations. They are, rather, local-level disputes that arise within the sector of the urban poor itself, or between it and other social and political actors, such as political parties and peasants. The cause of these disputes is the struggle to control water as a means of exercising dominion over the population of a specific territory. In this sense, they are an expression of *hydropolitics*: the use of water as a political resource and as a source of local power.

However, local disputes or micro-conflicts over water may become intertwined with other conflicts; for example, when this resource is used as a political banner or as a way of expressing electoral disputes between political parties. They may also be used as a means of pursuing other objectives, such as weakening independent urban organizations, substituting other social projects for water, or advancing the political careers of leaders.

By the same token, micro-conflicts may intensify as the urban population increases. The inhabitants of new squatter settlements exert pressure on the water distribution system by demanding to be connected or, alternatively, by making their own —clandestine— connections for their homes. This can easily cause friction between the more established residents of squatter settlements and the newcomers. The former defend their rights to water on the grounds that they participated in the struggle to obtain the service in the first place, while the latter demand support and solidarity from them to obtain access to water, which, due to their “irregular” status, they do not enjoy. The point of dispute is that water is a limited resource that cannot satisfy the current demand of all the urban poor. This means that the older urban poor value water and care for it as part of a collective patrimony. They refuse to turn their supply networks over to the State and avoid sharing water with new irregular settlements.

One of the characteristics of micro-conflicts over water is that they tend to become personalized, due to the lack of a legal or institutional framework or of social mechanisms designed to manage and resolve disputes. This can lead groups to resort to the use of violence, be it verbal, physical or psychological: anything from blackmail and threats to physical aggression and persecutions. The social effects of the use of violence are devastating: the urban poor are divided and fight among themselves. Entire families may stop speaking to one another and even come to see others as enemies, while all the time the interests of one actor or social or political group are imposed upon the population.

The origin of micro-conflicts concerning water parallels the formation of such squatter settlements. They emerge from the moment in which the State is not involved in supplying water or in managing this service. This void allows certain actors or groups to seek control of this scarce, strategic resource in such settlements. For example, some urban leaders fill their pockets by selling water and/or by imposing certain conditions upon the urban poor in terms of access to water and its use. In addition, such individuals or groups exercise independent power over water, as they control it with no intervention from the State.

Once water is introduced into these squatter settlements, management passes legally into the hands of the State. However, when the system and its installations are appropriated socially by the urban poor and urban organizations, they resist turning them over. This means that they consider the waterworks to be their own, because they participated in the social mobilizations and community work projects that led to the introduction of the service in the first place. During this period (which may last several months or even years) there is no established legal or institutional framework, but only regulations or “informal” agreements with respect to water. The urban poor exercise a form of *de facto* social control that may be accompanied by experience in the self-management of this service. This situation of legal ambiguity may well give rise to micro-conflicts over water.

In other words, micro-conflicts are brought about by the absence of a legal framework or by changes in an existing one, as well as by the presence of actors who are independent of the State but responsible for water management. These disputes do not necessarily imply the involvement of the State, because the established urban poor, groups

of newcomers, land developers, peasants and political parties may all be implicated as well. The use of violence is a sign of the lack of institutional channels available to resolve such conflicts, and this is where *hydropolitics* raises its head: as a manifestation of the tensions that arise over the control and administration of a resource that is increasingly scarce and strategic in cities.

A NOVEL EXPERIENCE OF THE SOCIAL ADMINISTRATION OF WATER IN THE 1990s: THE CASE OF THE CITY OF MORELIA

Within the spectrum of urban conflicts, those concerned with water play a particularly significant role, as they lead to a greater degree of social participation and mobilization on the part of the population. This is because water is an increasingly limited resource in the cities and as a result of its strategic character it has become a source of numerous tensions (Antón, 1996). Nonetheless, the attention of researchers has been centered on the struggles to introduce and supply potable water. Few studies have tackled the analysis of conflicts over the administration of this service; that is to say, the different forms of state, private and social participation in the administration, distribution and control of water (Coing, 1991). Although it may be true that the decade of 1990 has been witness to important changes in the administration of this vital liquid that tend towards its privatization, there are also examples of social administration and community participation (Serageldin, 1994; Ávila, 2001).

In this sense, the experience of social administration of water in popular settlements in Morelia —a medium-sized city— is very interesting indeed (Ávila, 2001).⁵ This experience was fostered by an urban organization called “*United Colonies of the South*” (“*Colonias Unidas del Sur*, or “CUS”), that exercised its influence in some 10 popular settlements with a total population of more than 12,000 inhabitants. Because it emerged in the context of changes in legislation concerning water, it presented an alternative based on the social administration of water in the city that went in the face of the dominant tendency towards the privatization of this service (in which the State considers private business to be the central actor, and not social organizations).

At the same time, this is an example of how urban struggles have become more complex. The urban poor no longer only present problems concerning land tenure, the regularization of their settlements and the introduction of services, but also suggest new forms of administration for the city; from the social administration of urban services such as water, to the democratic election of their local leaders and authorities (Núñez, 1990, Coing, 1991).

Among the elements that influence such new demands for water we find: 1) the reduced participation of the State in financing projects for waterworks as a result of cutbacks in the budget for social spending; 2) the social appropriation of waterworks that

⁵ From the end of the 1970s, new tendencies in urbanization began to emerge in Latin America and particularly in Mexico, which were expressed in the fact that medium-sized cities grew at a faster pace than large ones (Hardoy, 1992, Habitat, 1996, Aguilar, 1996). This not only implied a greater concentration of population in such cities, but also an increased demand for employment, land, housing and urban services. Nonetheless, the growth of intermediate-sized cities coincided with the so-called “lost decade” of the 1980s (years of economic crises and external debt), that led —among other things— to higher unemployment and more widespread poverty, as well as to a reduction in social spending by the State and scarcer economic resources to finance urbanization.

arose because of the contributions that the residents made in labor and cash; and, 3) the sociocultural perception that water is a scarce, limited resource that requires an adequate system of administration in order to guarantee its conservation and availability to the entire population.

By the same token, this case study shows that some things changed in the decade of the 1990s. This is now a society that is seeking a different relationship with the State; a city that has grown and demands greater monetary and natural resources in order to function; an administration of crisis that only promotes the participation of the general population in the stage of the introduction of urban services (contributing labor and cash); and a city affected by economic modernization with no political change in the State that is reflected in the legal obstacles to a social, communitarian administration of water.

The political dimension of this conflict is one of the specificities of the case analyzed herein, because water is used as a political trampoline or as a stage for disputes among local groups, and a means of exercising social and political control over the population. What is more, it expresses the confrontation of different political projects related to water: one of which is based on self-administration (a utopian plan) while the other is statist (with no social participation).⁶

As a result of this, there arose in Morelia a possible project⁷ for a public, social co-administration system for water:⁸ a Local Water Board (*Junta Local del Agua*), that would be in charge of channelling water into popular settlements in the south of the city. While it is true that there was resistance on the part of the State to allowing a decentralized system of water administration, the local residents succeeded in gaining representation as members or councillors on the administrative structure of the Board; which also included municipal authorities. This meant a larger social participation in decision-making, but also a greater economic responsibility in actually supplying the service itself, as local residents would have to pay the real cost of water, with no State subsidies. The resources taken in from the tariffs for water were to be administered by the Board itself and would not be mixed with those of the municipal organism in charge of providing water to the city proper. In this

⁶ The conflict over the social administration of water in popular settlements implied a confrontation of two projects; one of which was based on self-administration and was supported by social participation; while the other was statist and implied little or no social participación. This meant that the point in dispute concerned the question of on just whose shoulders the administration of water would fall. Local residents proposed the self-administration approach, while the municipality favored State-control of this service, in clear contrast to tendencies towards privatization. Beyond this difference, there was also the struggle for control of sources water, as local residents wished to secure their present and future water-supply through the formation of a self-administered Board, while the municipality intended to control water in order to satisfy the demand of the entire city of Morelia, and not only that of the popular settlements.

⁷ Although a utopian project for the self-administration of water did exist, according to the new “Law of Potable Water” the possible project only allowed for a system of co-administration between local residents and the State. The “limits of the posible”, however, were not only a function of legal specifications, but also—and above all— of the political group that led the initiative. Although urban organizations independent of State control existed, they received a rotund “NO” to the creation of local, co-administered water boards.

⁸ In the face of the processes of “thinning” and privatizing services, the legal and institutional bases were created for co-administration; that is to say, the State exercises a dependent power because it maintains its control of water and assigns decision-making to another body, in this case leaving water administration in the hands of local residents. Thus, the co-administration of water becomes a political “way out” for the State from the pressure exercised by urban organizations to exercise some kind of social control over water.

sense, the function of the State would be strictly a regulatory and normative one; that is to say, it would oversee the correct operation and administration of the Board and prevent local power groups from taking political control of water.

CONCLUSIONS

1. The urban conflictiveness of the 1980s and 1990s in Mexico is associated with the change in the relationship between the State and the urban poor (the crisis of political clientelism and the ascendance of urban movements), new tendencies in urbanization (the growth of medium-sized cities and popular urbanization), the processes of democratization (the incorporation of citizens' demands in urban movements), and changes in urban and environmental politics (the privatization of urban services and new regulations). At the same time, urban conflictiveness is a result of several factors, including: local history, the logic of urbanization, political culture, social movements and the urban-environmental problems of each city. Local specificities, however, mold the form in which conflicts develop and are managed: from the type of actors involved and their objectives and demands, to their methods and strategies of struggle.

2. Urban conflicts related to water arise when there are power relations that control and limit access to water by the inhabitants of squatter settlements; that is, when urban leaders and local power groups hold control of water and impose their personal interests upon those of the collectivity. In both cases, conflicts emerge because there is an institutional vacuum caused by the State's lack of participation in urban water management. There is no legal framework, nor institutions to regulate access to water and the provision of this service, precisely because the areas involved are squatter settlements. This situation allows certain actors to exercise a kind of independent power over water, as the only law is the one they impose upon the rest of the population. As a result, violence becomes a way of resolving differences. There is little possibility for dialogue or negotiation because no social regulations exist, or those that do exist are constantly transgressed.

3. Urban conflicts over water also occur when poor people in the cities break their patron-client ties in order to participate as collectivities in the form of urban movements that challenge the State, demanding that they be provided with water or that improvements be made in existing systems. These collective acts to demand water are based on previous experiences of organization, such as urban struggles for the regularization of land and property or similar social movements (including student and citizen mobilizations). This implies that struggles over water are inserted into a socio-political context in which the actors involved have objectives and interests that go beyond just protests for water.

4. When urban conflicts over water in squatter settlements are accompanied by collective action, they can be differentiated according to the demands that the urban poor present to the State, which is the other principle participant: a) collective acts or isolated protests that demand access to water or improvements in existing systems; b) confrontational protests that use mobilizations to exert political pressure and demand that the State provide water; c) acts of political confrontation that propose alternative projects for supplying water to squatter settlements and attempt to establish social participation in decision-making; and, d) urban movements that propose novel forms of city management, in which the poor and urban organizations demand a form of social control over water in the city.

We should point out that collective acts and confrontational protests over water were characteristic of the seventies and eighties, and were associated with the expansion of popular urbanization and the crisis of clientelist politics in the cities. On the other hand, political confrontations and urban movements concerning water were more characteristic of the eighties and nineties and were related to the country's new socio-political and environmental context, including the emergence of citizen struggles, opposition political parties, the reduction of the State, the privatization of services, and changes in urban and environmental policies.

In this sense, urban conflicts over water are dynamic and transform themselves according to the degree of maturity of urban movements. At first, conflicts center on the introduction of water into squatter settlements; while in a second phase, they tend to propose changes in the management of that service. This means that the initial social demands are transformed into political and cultural ones, as urban organizations attempt to increase their participation or influence in decision-making, propose projects for urban self-management and fight to attain their goal of social control over water in the city. These urban movements, then, go through a maturing process and have points in common with the so-called "new social movements" (Riechmann and Fernández-Buey, 1994).

5. Collective actions associated with water feed and strengthen urban movements, whose demand to be provided with water becomes an element that unifies the urban poor in opposition to the State; given that the scarcity of water is a common condition that all squatter settlements share. As a result, the sphere of influence of urban movements is widened, because, for economic and technical reasons, it is more feasible to resolve this problem at a collective level than settlement-by-settlement. At the same time, urban movements imprint their own dynamic on struggles for water, as they articulate themselves with other social and political movements in order to strengthen their position with respect to the State. Hence, struggles over water feed urban movements and, indeed, represent a force that drives their development. Moreover, urban movements leave a mark on struggles for water that affects the expansion or contraction of their sphere of political action.

6. Not all conflicts over water include collective actions, as in cases of local disputes and micro-conflicts. In these circumstances, the State is no longer the principle actor because water is not subject to public administration. Thus, disputes over the control of this resource intensify inside the squatter settlements themselves. The legality and the social regulations that exist with respect to water are defined by the poor themselves through their urban organizations and so are subject to political manipulation. For example, "dissident" individuals or groups may be sanctioned by having their water supply cut off. This is where *hydropolitics* comes to play a fundamental role in such settlements, as water is used as a political resource to maintain control over a certain territory and its population.

7. During the 1990s, urban movements emerged as a response to changes in State policies, such as: a) protests by poor people in the city caused by reductions in social spending for authorizing housing and urban services; b) local resistance to increases in tariffs for urban services and the assignation of an economic value to water; c) opposition by the urban poor to the privatization and statization of services as a mechanism of defense for its urban self-administration projects. In addition, changes in water legislation and policies had implications for the administration of urban services, and made possible the creation of local Water Boards with a combined public and social administration as an alternative to the privatization of this service. This meant a transfer of State power from an independent power to a dependent one, although this was only in terms of participation in

decision-making and did not affect the actual control of water. The case of Morelia is novel not only at the state level, but also on the national stage, because it shows different forms of urban water administration in a confrontation with the privatization policies affecting this service. This means that it stands as an example of a greater co-responsibility on the part of the users—in this case, the residents of poor settlements—in the provision of public services.

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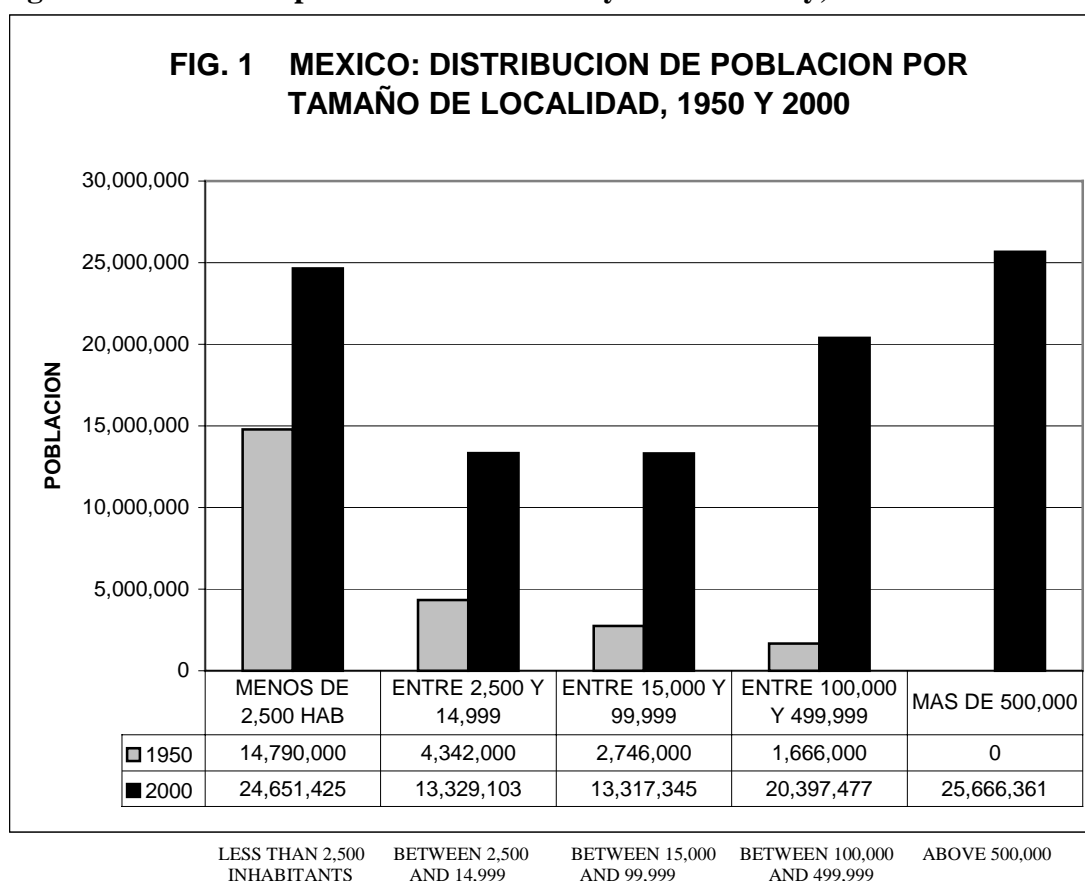
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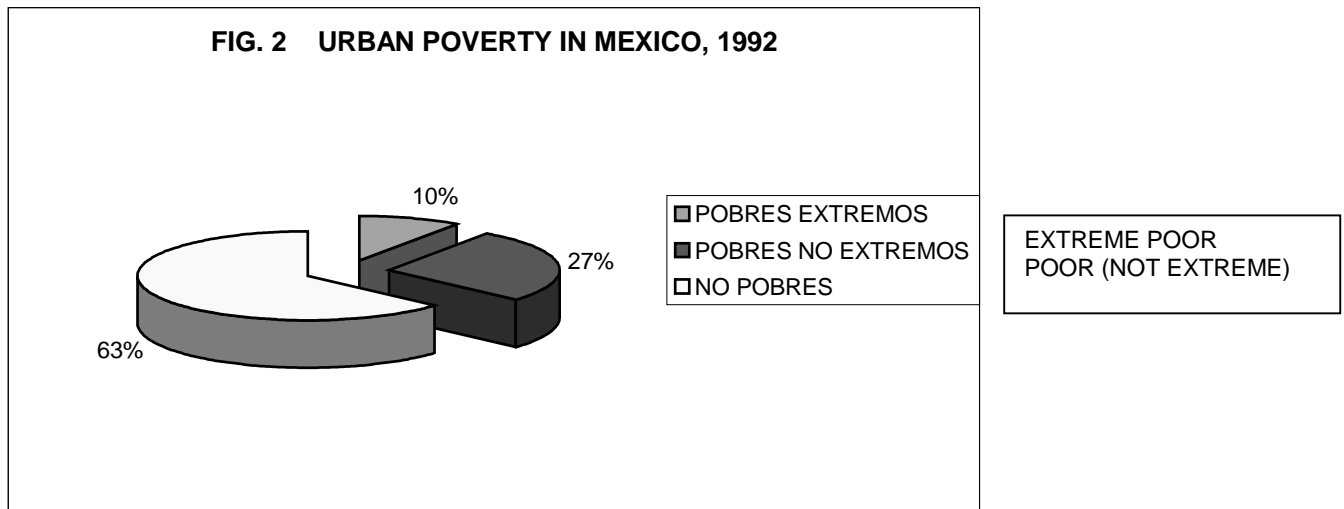
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APPENDIX

Figure 1: México: Population distribution by size of locality, 1950 and 2000



Source: *Censos de población y vivienda, 1950 and 2000.*



Source: Taken from an INEGI-CEPAL study in Boltvinik and Hernández Laos (1999: 113).