

THE HUMAN RIGHT TO DRINKING WATER AND SANITATION IN MEXICO: HOW TO MAKE IT EFFECTIVE?

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ABSTRACT: The objective is to understand what mechanisms of governance contribute to make the human right to drinking water and sanitation effective in Mexico. The methodological strategy we used is a case study of the Tijuana-San Diego cross-border region with the purpose of comparing two different traditions of governance within one same geographical context. The main finding suggests that it is the governance framework –and not economic capability– what determines the effectiveness of water policies. Specifically, we obtained three lessons on the mechanisms of governance and three lessons for desirable objectives in new legislations. Summarizing, paying attention to the mechanisms of governance is recommended instead of arguing axiomatically in favor of this right.

KEYWORDS: Human Right to Drinking Water and Sanitation, Mechanisms of Governance, Tijuana-San Diego, General Law of Water, Mexico.

INTRODUCTION

International water organizations agree that the water crisis is a governance crisis and not a technical one. Today, in spite of large technological advances, the matter of inequality continues to be a structural problem of contemporary society. This inequality has much to do with corruption and bad governance (Banco Mundial, 2017). Particularly, people of underdeveloped countries are demanding the most urgent solutions, since their countries have amassed the sufferings of poverty. In fact, one of every four residents of the cities of the

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world still does not have access to improved sanitation installations and 27% of the residents of cities in the underdeveloped world do not have access to tap water at home. This pressure is growing due to the fact that 95% of urban expansion in the next decades will take place in the underdeveloped world. Mexico is among this group (ONU, 2011).

Underdeveloped countries also must face the challenge of financing future development projects while maintaining their current infrastructure at the same time (OCDE, 2015). However, the developed world presents serious water problems as well. One of the present challenges is the growing uncertainty on the future of the availability of hydraulic resources due to the competition between different water users, like citizens, farmers, industries and natural areas. Based on the information above, the basic difference between the water challenges of the underdeveloped world and the developed one only lays in the urgency of the answers that are needed.

Mexico is among those countries that require urgent answers to water-related problems. Additionally, this country recognizes the human right to drinking water and sanitation in its Constitution. This is a challenging situation since –in spite of having urgent hydraulic problems– it assumes the international commitment of guaranteeing this human right. Now, *how can it be guaranteed?* It is precisely this question what serves as the premise of this research. To answer this question, we suggest the methodology of a case study.

A central challenge in the Tijuana-San Diego region is to find a sustainable balance in water distribution among the different users on both sides of the border (Van Schoik, 2003), since the dominating factors in the region are dryness and demographic growth (Bradley and De la Fuente, 2003). On the one hand, Tijuana is considered to be one of the most thriving metropolitan regions in Mexico, since this city offers many assets to the urban cross-border region, including cheap and qualified labor, affordable housing and medical attention; it also has multi-national corporations and a massive binational tourism system. For its part, San Diego is considered as one of the most inhabitable cities in the United States. It offers a nice business environment, thanks to its diversified economy based on high technology, highly qualified labor and tourism, making it an international destination to carry-out conventions (Kada and Kiy, 2004).

The Basin of the Tijuana River is an ecosystem whose natural water flow is from Tijuana to San Diego, creating several problems that result from the flooding of the river and the dangerous waste materials it transports. This watershed has water problems like the deterioration of the local sources, the extreme dependence, intensive uses of the land in the construction with tendencies to forming a cross-border megalopolis (Castro-Ruiz, *et al.*, 2006).

In fact, the Colorado River has been a source of conflict in the border between the United States and Mexico, because when the level of the river diminishes, the hydraulic stress increases and, therefore, Mexico starts complaining of the quantity and quality of the water it receives (Getches, 2005). In contrast, the specific case of the cross-border metropolis of Tijuana-San Diego has been more cooperative than competitive, since both cities have developed cooperation mechanisms.

In spite that these cities have two different systems of governance, they are intimately related. They have a history of cooperation, in which the international wastewater treatment plant in San Diego and sewer water treatment in Tijuana stand out as examples. Also, in recent years, San Diego has sold drinking water to Tijuana, since this city has faced supply crisis due to several reasons.

WHAT IS THE HUMAN RIGHT TO DRINKING WATER AND SANITATION?

The immediate precedent of the recognition of the human right to drinking water and sanitation lies in General Observation number 15 of the Committee of Economic, Social and Cultural Rights of the United Nations. Article I.1 of said observation sets that the human right to water “is indispensable for a decent human life” (UN, 2002). In Mexico, the right to water is also defined as a guarantee that each of us will have access to sufficient water that is healthy, acceptable, physically accessible and affordable for personal and domestic use.

The explicit recognition of the human right to drinking water and sanitation took place on July 28, 2010. The General Assembly of the United Nations, through Resolution 64/292, reasserted General Observation no. 15 of 2002 in the sense *that clean drinking water and sanitation are essential for the fulfillment of all other Human Rights* (UN, 2010a). This resolution exhorts States and international organizations to invest financial resources in the training and transference of technology to particularly help underdeveloped countries. Additional, the objective is that the drinking water and sanitation supply must be healthy, clean, accessible and affordable for everyone.

In the same way, the Human Rights Council of the United Nations, through resolution A/HRC/RES/15/9, on September 2010, reasserted that drinking water and sanitation is part of the international law and legally binding for all States (UN, 2010b). Based on these precedents, Mexico materialized the human right to drinking water and sanitation in the reform to Article 4 of its Constitution in February 8, 2012, affirming that:

Every person has the right to access, dispose and sanitize water for personal and domestic consumption in a manner that is sufficient, healthy and affordable. The State will guarantee this right and the law will define the bases, support and modalities for the access and equitable and sustainable use of hydraulic resources, establishing the participation of the federation, federative entities and municipalities, as well as the participation of citizens for the attainment of such ends (Diario Oficial de la Federación, 2012; Constitución Política Mexicana, 2017).

Specifically, the human right to drinking water and sanitation recognized in the Mexican Constitution implies that water and sanitation must be sufficient, healthy and affordable. First, water must be sufficient, meaning that its supply per person must be sufficient and continuous for personal and domestic use. For example, the World Health Organization (WHO) suggests that the minimal amount required for the aforementioned are 50 liters per resident per day. Secondly, water must be healthy to the extent that is freed of microorganisms, chemical substances and radiological dangers that constitute a threat for human health. Lastly, water and sanitation must be affordable to the extent that a home's economy cannot be affected by getting it. For example, the United Nations Development Program suggests that the cost of water should not go over 3% of a home's income (UN, 2016).

It is worth noting that the Mexican Constitution resumed the right to water stipulated by the United Nations almost entirely, however, *it didn't include* the commitment to accessibility, i.e. physical accessibility within or near a citizen's dwelling. This implies that the water source should be less than 1,000 meters away from somebody's home and the displacement time for getting it shouldn't be over 30 minutes (Howard and Bartram, 2003). My interpretation of this fact is that Mexico did not commit with physical accessibility due to the irregular geography of several of its small communities. However, this doesn't suggest that Mexico gave up the effort for gaining greater accessibility of water to its residents.

This constitutional reform has become urgently relevant, because the Mexican Parliament has the obligation of creating *The General Law of Water* with the purpose of setting a legal framework that guarantees the completion of the right to water in Mexico. Specifically, setting the jurisdiction of each branch of government, as well as the mechanisms of citizen participation. In Mexican federalism, the difference between a Federal Law and a General Law is that the first one only regulates activities of the federal realm, while the second one sets the jurisdiction of the federal, state and municipal realms around the completion of a human right recognized by the Constitution (Serna, 2009).

The federative entities' faculties are most ambiguous in the hydraulic Mexican federalism, since they depend on the capacities of each one of them for widening or restricting the scope of their actual jurisdiction. The attributions are clearer in the municipal and the federal realms. Regarding the second one, Article 27 of the Mexican Political Constitution sets that water is a natural resource of the national public domain, because public policies on hydraulic resources should have the federal government's consent due to the use of national waters. In the municipal realm, Article 115 of the Mexican Political Constitution sets that municipalities have the faculty and responsibility to provide the service of drinking water and sanitation to their populations, which is why municipalities seem to be the most visible responsible parties for protecting the right to water.

However, municipalities in Mexico are loaded with responsibilities and devoid of the sufficient institutional capabilities to carry them out (Merino, 2005). Before this context, the new General Law of Water in Mexico seeks to coordinate competences (federal, state, municipal) and the efforts of different actors (public, private and social) to guarantee the human right to water. Therefore, the guarantee of the human right to drinking water and sanitation is a responsibility of the Mexican State, which implies the existence of effective governance that includes the participation of every actor. It is precisely the approach of governance what allows a better explanation of the opportunities and challenges of guaranteeing the right to water in Mexico. Below is a brief description of the situation of the service of drinking water and sanitation in Mexico. It is a general revision for understanding the structural coincidences and differences that exist in different regions. The relevance of this brief recounting is to underline the importance of history in the development of the water governance institutions.

SITUATION SUMMARY OF THE SERVICES OF DRINKING WATER AND SANITATION IN MEXICO

The situation of the services of water and sanitation in Mexico is diverse, i.e. the country's situation cannot be generalized and thought of in terms of a single solution for the different problems of each one of its regions. For example, in spite that 90% of the Mexican population has access to drinking water and sanitation, there is an inadequate availability in terms of quality and quantity. Behind that high coverage number, there are very diverse situations such as: sanitary problems due to the poor quality of the water, excessive work loads on women as the responsible parties for water supply at homes, high

costs for the poorest due to buying their water in tanker trucks, as well as sewer water downloads in the open, without the proper treatment (Barkin, 2006).

These situations have become more intense in the urban areas of Mexico, since this country has one of the highest rates of urban growth in the world. Paradoxically, the Mexican southern states, which rely on the highest availability of water, are the ones with the lowest coverage rates in terms of access to drinking water and sanitation. On the other hand, the northern states, which in its majority are seated in arid areas with low availability of water, are the ones with the highest rates of water availability. To a large extent, these differences are due to the economic development of these regions. However, aside from water availability, the common denominator that these regions share is an underdeveloped culture of water (CONAGUA, 2016a).

The culture water is more needed in countries with a low quality and quantity of water. Mexico is one of the countries with the least availability of water in the world. In spite of that, 16% of this country's aquifers are over-exploited and the amount of governance needed for public policies focused on reducing water consumption just doesn't seem to exist. Also, only 20% of sewer water are reclaimed and the use rate of recycled water is almost non-existent. 80% of sewage water that is not treated, is poured directly to receptive bodies like rivers, lakes and seas (CONAGUA, 2016b). In this sense, water culture in Mexico is based on the scarce awareness on high consumption of water and on the effects of low quality water in the environment and human health, in the users of water as well as in the majority of the agencies responsible for delivering the service (Domínguez, 2006).

The mechanisms of water governance used in Mexico during the past century followed three different models. First, during close to the whole XX Century, a centralizing approach was favored, pushing for more supply sources. Second, during the second half of the XX Century, a decentralized approach was favored, focused on reducing water demand (CONAGUA, 2016b). Third, the current paradigm of water governance in Mexico is based on hydraulic sustainability, which focuses on making decisions that have an economic, social and environmental support, i.e.: for the long term. However, it is important to stress that the governance models for water have been driven as a discourse from the central government, which doesn't guarantee that water users, in different regions, adopt said principles in actual practice.

In this sense, the present study aims to underline the governance mechanisms, both formal and informal, that allow the fulfillment of the human right to drinking water and sanitation in Mexico. Instead of arguing in favor of said right, the purpose of this research is to offer evidences that help materialize said right in practice. For that, a methodological qualitative strategy, based on semi-

structured interviews, was used with the purpose of knowing the mechanisms behind an effective water policy and management.

Below we present a case study formed by two coexisting different governance systems. It is the Tijuana-San Diego cross-border urban region. The city of Tijuana, as part of Mexico, recognizes the right to water and sanitation, while the city of San Diego, as part of the United States, does not recognize this human right. The purpose is to analyze the mechanisms of these two different governance systems that, nevertheless, are interdependent, because water bodies do not respect geographical or political borders. This case study is relevant because it has historic moments of cooperation and conflict at the same time.

THE CASE OF THE TIJUANA-SAN DIEGO URBAN CROSS-BORDER REGION

The Tijuana-San Diego cross-border urban region was selected as a case study because it relies on three different modes of governance. On the one hand, the city of Tijuana has a tradition of hierarchical governance, which has translated into a centralization of its decision-making processes (Weber, 1978). On the other hand, the city of San Diego has a market-style governance tradition, which has translated into a wide decentralization and a variety of agencies in charge of lending the services of drinking water and sanitation (Ostrom, 1974). Also, the cross-border relation between these two cities shows a scenario of a new type of governance of networks, which has translated into joint solutions to the hydraulic problems that beset them (Kooiman, 1993).

For a better understanding of the Tijuana-San Diego cross-border urban region, it is necessary to contextualize it in the Lower Delta of the Colorado River, which has been the main water supply for both cities. In fact, farmers of both sides of the border have been the users to get the largest volumes of water. For their part, cities had not been relevant actors in negotiations. This is because the volume of water that occupied the cities did not represent a major problem for farmers. However, before the current urban growth, conflicts between cities and farmers have increased. Now, cities compete for water.

In the case of Tijuana-San Diego, history has not been as simple as a conflict between a strong country and a weaker one, since each problem has brought different scenarios. For example, these cross-border cities have fought together in matters of water supply and, at the same time, have been in conflict in matters of sanitation. That is to say that cooperation and conflict have been in function of the joint interests at play, not because of the sympathy between the