

CHANGES WITHOUT CHANGES: THE PUEBLA'S ALTO ATOYAC SUB-BASIN CASE IN MEXICO

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■ Since the year 2000, actions at the three governmental levels have taken place to improve water quality in Mexico's Puebla Alto Atoyac sub-basin. This paper reports a situation in which several policy actors have been striving for water quality improvement in that polluted sub-basin. However, when they were asked to evaluate their actions, they generally answered: "things have not changed"

Governmental policy changes since 2000

Mexico has a well-developed policy framework for water resources management; a number of institutions are in place, at federal and state level, and Mexico has developed an array of policy instruments (from abstraction charges to water markets). However, policy implementation is uneven, river basin councils are not yet fully operational and the regulatory framework for drinking water and sanitation is fragmented (OECD, 2013:32).

Each elected government is required by law to create its own development plan in accordance with the plan of the next superior level. However, the frequency of elections and especially the lack of continuity from one administration to the next, have been seen as obstructing long-term policies and planning. Elections are held every six years at the state and federal levels and every three years for municipalities. The most recent example for this lack of continuity is Mexico's 2030 Water Agenda. This was described as a long-term strategic vision plan in 2011 and it "[...] was conceived as a forward-looking exercise as part of the national planning system" (OECD, 2013:32). However, within three years after the Agenda's creation, it is only remembered by the various levels of government and social sectors in the Alto Atoyac sub-basin as a "nice exercise" but without any real impact. Currently, Mexico's master plan is the 2014-2018 National Hydric Plan.

Figure 1 below shows the governmental periods. The red boxes correspond to the political party of the centre (PRI) and the blue to the party of the right (PAN).

The main responsibility for water-related policies lies at the federal level, and is the CONAGUA (Water National Council). This acts in Puebla through the CONAGUA's State Delegation and its Water Organism for the Balsas Basin. At the state level, the responsible authority is CEAS (Water and Sanitation State Commission), created in 1992 by the State Water Law. Its mission was to promote water management programs, and to provide technical and administrative support for water utilities at the municipal and inter-municipal levels. In December 2012, with the advent of the new State Water Law, the CEAS was empowered to regulate the state's water. The SOAPAP (Water Utility for Drinking Water and Sewage of Puebla) was created in 1984 by state government decree and authorized to provide water services to Puebla's metropolitan area. It is the most important water utility in the state, because it provides water services to two million inhabitants. Until 2014, before its privatisation, the SOAPAP's main governing body is the Directive Council, whose members also belong to the municipal and state governments. The governor has the right to appoint the general director of SOAPAP.

The Puebla's Alto Atoyac sub-basin

Puebla's Alto Atoyac sub-basin is part of the Balsas River Basin, which spreads over the states of Guerrero, Jalisco, State of Mexico, Michoacan, Morelos, Oaxaca, Puebla and Tlaxcala. The basin's council territory is 116,014 km², its population in 2010 was 10,990,154 inhabitants and it generates 6.5% of the national GDP (CONAGUA, 2012: 16). The cities with the largest population within the basin are Tlaxcala, Puebla, and

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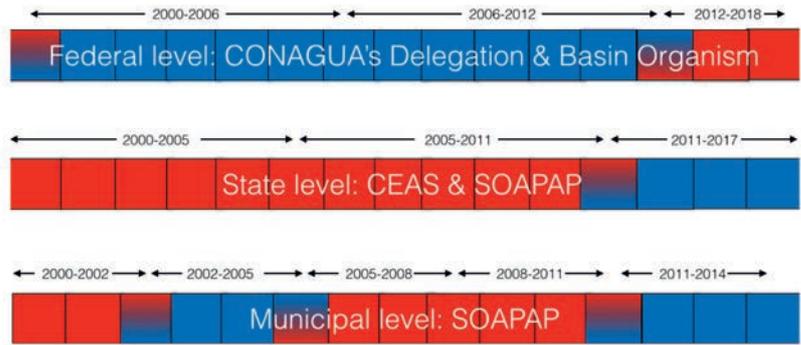


Figure 1. **Administrative periods at the three governmental levels**

they are also the main water consumers and polluters. Puebla's Alto Atoyac sub-basin is located at the start of the Balsas Hydrological region. The rivers Zahuapan, Frio and San Martin feed into the Atoyac River, which has a length of 113.7 Km (Aragonés, 2001:5). Puebla is the biggest city in terms of population and economy in the sub-basin. It had 1,540,000 inhabitants in 2010 (SNIM, 2013). Figure 2, shows the location of this sub-basin.

The story

The Atoyac River is the third most polluted in Mexico. This pollution was originated due to lack of water treatment from the municipal sewages and the industry, therefore pollution levels are eight times higher than the norm. Heavy metals such as mercury and lead are found. The federal government's interest in addressing the pollution problem began in 1997, when it conducted a classification of the river. This study exposed the water quality status and the river's dilution and assimilation capacity. The study was taken as the legal basis to grant permits for wastewater discharges. This classification also established stages and goals for 2015 when the 27 areas of the Atoyac River were intended to have the capacity to protect its aquatic life.

One of the most important efforts after the election of 2000, was a study called "Puebla's city Atoyac River's environmental degradation: actions for its conservation". CONAGUA, SOAPAP, the *Universidad Iberoamericana* and the NGO *Puebla Verde* all supported it. The objective was to create a comprehensive description of the river's problems and to make recommendations. The study explored 4 kilometers of the Atoyac River. But it was not until 2010 when a new environmental movement for the river started, which was called "Turn your face towards the river", led by the *Los Atoyaceros* NGO. This was news worthy because members of the organisation decided to kayak along 10 kilometers of the polluted river. They pointed out the health and environmental risks for the population. This movement gained attention at the various levels of the government. During the state government's period from 1999-2005, important steps to implement a policy of construction and operation of water treatment plants took place. The plants were built and operated by the French company Degremont. According to the SOAPAP, from 2001 to 2012 the company won about 150 million UD dollars in contracts. Although it is estimated that in total Degremont obtained about 380 million US dollars (Núñez, n.d.). However since this French company



Figure 2. **Puebla's Alto Atoyac sub-basin location**

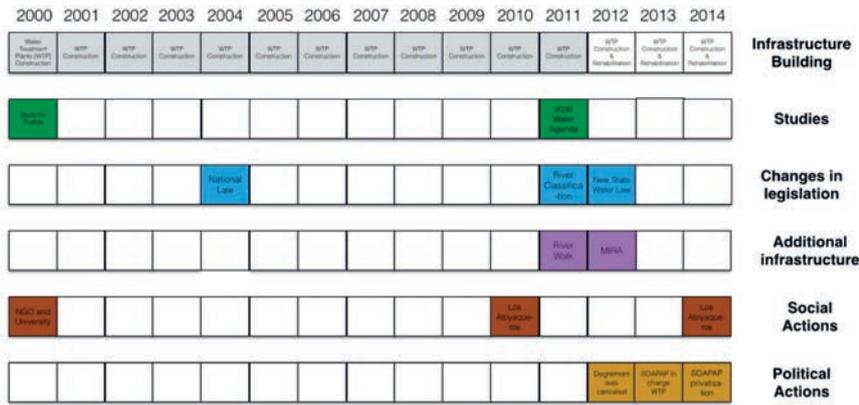


Figure 3. Actions done to favour Puebla's Alto Atoyac sub-basin sanitation

did not sufficiently improve the water quality in the sub-basin, in 2012 the state government rescinded the contracts with Degremont. The reason was that the four macro-water-treatment plants located in Puebla, Cuautlancingo and San Pedro Cholula did not meet the federal sanitation standards (Tirzo, n.d.).

In 2011, the new state administration announced a 130 million USD budget. This budget was composed of the two states that share the sub-basin (Tlaxcala and Puebla) and the federal government. In June of the same year the federal government published the "Atoyac, Xochiac or Hueyapan River Classification". This white paper sets water quality goals, milestones and sets maximum discharge levels.

In 2012, the previous federal administration stated that CONAGUA had achieved only 35% progress regarding water sanitation in the sub-basin; but in April 2013, the new federal administration corrected that the progress only accounted for 10% of the water sanitation project. From the 276 million USD co-investment budget, only 65 million were spent. This was for two reasons: the lack of the state's co-investment part and because only 6 out of the 24 water treatment plants were really operating (Rangel, 2013). Sadly this is not an isolated case. For instance the 2001-2006 National Hydric Plan had the goal of achieving 65% of waste-water being treated in Mexico; however the performance was only 36.1%. Another example is the 2007-2012 federal government hydric plan, which set the waste-water treatment national objective to 60%, however the current capacity is only 47.5%. (CONAGUA, 2014: 137).

The policy driven forward by the federal government (2006-2012) was to construct water treatment plants. However, the current administration (2012-2018) has changed the focus on improving existing water treatment plants, so as to take full advantage of the existing infrastructure.

In April 2013, CONAGUA launched the Integral Water Management Project for the Alto Atoyac sub-basin, which covers 17 municipalities. This project was launched after CONAGUA's Puebla delegation confirmed that the Atoyac River had developed from the 7th to the 3rd most polluted river in Mexico. CONAGUA held the state governments from Puebla

and Tlaxcala accountable, due to their lack of investment (Rangel, 2013). As mentioned earlier, over a period of 14 years, the stakeholders perceived no changes in the water quality despite a huge spending of money.

Figure 3 below summaries the actions carried out mainly by the government and the awareness raising two kayak activities that *Los Atoyaceros* NGO used to gain publicity.

Contextual analysis

For the following analysis, the Elements of Governance Model (Bressers and Kuks, 2003) provides an insight into the governance context of Puebla's Alto Atoyac sub-basin.

There are five elements of governance in the Contextual Interaction Theory and they can be summarised as follows:

- 1 Multiple administrative levels and problem scales (multi-level)
- 2 Multiple actors in the policy networks (multi-actor)
- 3 A multiplicity of problem definitions and other policy beliefs (multi-faceted)
- 4 Multiple instruments in the policy strategy (multi-instrumental)
- 5 Multiple responsibilities and resources for implementation (multi-resource based)

Each is described in more detail below.

MULTI-LEVEL

One of the multi-level problems is that for 14 years Mexico's sanitation policy has been developed between the state and federal levels, encouraged by the Rules of Operation of the CONAGUA's programs. The federal policy has focused on the building of water treatment plants without considering the operational

costs. However in Mexico, water utilities do not have sufficient resources to keep such plants running and SOAPAP is one such utility for the State capital. All of this implies that the collaboration between the levels is (too) dependent on good network relationships, like shared party affiliations (see below).

MULTI-ACTOR

After the state elections and after kayaking on the river from *Los Atoyaceros*, a better understanding among the three governmental levels started. Between 2011 and 2012, the three governmental levels were from the same political party and some short-term objectives were achieved: the River Classification, the alignment of the State Water Agenda with the 2030 Water Agenda, the visitor centre MIRA (Module of Information about the Atoyac River) and the creation of a river-walk. However, newly elected actors prefer to create new plans or programs, and as a result there is a widespread lack of continuity. Thus, these actions were not able to create positive results for the water quality. The River Classification has not yet been implemented because the new norm will not enter into force until after the current permits expire. The 2030 Water Agenda, that got such nice reception by the OECD as an integrated approach, is no longer seen as the basic policy implementation document, but instead the 2014-2018 National Hydric Plan is being implemented. The visitor centre MIRA and its river-walk are even criticised for exposing people to polluted water.

MULTI-FACETED

Although the environmental NGO and federal administrations have regarded dealing with the Atoyac pollution as a priority, the state governments have not. Industry perceives the implementation of regulation as uneven and themselves as a “captive subject” from CONAGUA and SOAPAP. There have been no strong actions against not-legally permitted companies or the municipal slaughterhouse, which decreases trust and motivation with the other companies and NGOs.

MULTI-INSTRUMENTAL

Legal instruments, such as the Federal and State Law, have been updated but they have not been enforced. In the case of the National Water Law, one of its main problems is that 20 years since its creation, no secondary legislation has been created, restricting its

implementation and effectiveness. The main actions have been focused on building water treatment plants through CONAGUA's programs. However, these require co-investment from the state government. Finally the state government has taken improper advantage of its role as the intermediary, and it is accused by water utilities of choosing construction companies often on the basis of personal relationships.

MULTI-RESOURCED BASED

The main resources for water treatment plant construction come from the federal government, as it has the key legal and economic resources. If the water utilities and industries that discharge into federal water bodies do not meet legal standards, they must pay a fine to CONAGUA. However, CONAGUA has very limited resources to monitor federal law implementation (OCDE, 2013: 70). Only 1.15% of the CONAGUA's budget is intended for law enforcement supervision (OECD, 2013: 158).

Building water treatment plants is multi-resource based because it requires investments from the various governmental levels. However, to keep the plants running once built is the water utilities' responsibility. Unfortunately, they do not have sufficient resources to do that for two reasons: (1) they have been ineffective at collecting money from the users and (2) they depend on the approval of the State's congress to establish realistic tariffs. This has led to a politicisation of water charging and made cost recovery difficult.

Conclusion

From this analysis, it is possible to conclude that there is a lack of commitment from the policy actors to agree to a long-term plan, even though various actors have been involved. The policy making process has remained the same; the municipal level has not been included in the policy making process and the updated laws have not been fully implemented. The most important changes have only been at the political level, but changes in the institutional arrangements and their implementation are required to improve water quality in the Atoyac sub-basin.

In terms of the five elements of governance one can state that the multilevel arrangements are overly top-down, making collaboration overly dependent on good network relations in the multi-actor sphere, for instance

by shared party affiliations and personal contacts. The problem perspective tends to be more about showing action than about solving water problems. Thus the instruments used are narrowed down to the realization of showcases of new water treatment installations, rather than an integrated water system perspective, or even the proper maintenance of installations and enforcement of anti-pollution rules. The resources for implementation are not well aligned with the responsibilities, for instance preventing realistic tariffs that would enable better maintenance and monitoring.

The recent response to these problems from the state government was to circumvent them by the privatisation of the SOAPAP. However, the Water Utilities with the best performance in Mexico are not only private but also managed by the state government. Some examples are Nuevo Leon, Baja California and Queretaro (IMCO, 2014) and they do not raise the controversy and inconformity from society that privatisation has brought in other cases. It is very probable that SOAPAP, now Agua Puebla, still receives support from different federal programs and for this case it is important that more transparency will be encouraged by the federal government now it is private. This can be made possible through the Rules of Operation of the different programs. More transparency might help to decrease the political interests in the co-investment programs. Also joint actions by Agua Puebla and CONAGUA combined against the municipal slaughter houses and other not-legally permitted companies are important in order to create trust among the industry sector and the NGOs. This is very important since inclusion and participation of these actors, historically excluded, can facilitate actions that might help to improve the water quality in the sub-basin. So, while privatisation is far from a panacea, one should not dismiss it too easily in cases in which the sector is overly politicised.

Acknowledgement

We express our gratitude to CONACYT and CONCYTEP for funding this research. ■

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SAMENVATTING

Sinds 2000 zijn er maatregelen genomen om de waterkwaliteit te verbeteren van de Mexicaanse Puebla Alto Atoyac rivier. De uitgaven bedroegen honderden miljoenen dollars. Toch verbeterde de waterkwaliteit niet. Vandaar de verandering die geen verandering bleek te zijn die in de titel wordt genoemd. In dit artikel wordt uitgelegd hoe dat mogelijk was. Het antwoord is grotendeels dat al het geld eenzijdig werd besteed aan het bouwen van zuiveringsinstallaties en bovendien zonder te voorzien in goed onderhoud en exploitatie. Dat antwoord schept natuurlijk nieuwe vragen. Hoe heeft het zover kunnen komen? Het artikel gebruikt de vijf elementen van governance die door Bressers en Kuks in 2003 werden onderscheiden om deze vraag te beantwoorden.
