



STRUCTURAL VIOLENCE IN WATER PRIVATIZATION INITIATIVES IN LATIN
AMERICA

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Structural Violence in Water Privatization Initiatives in Latin America

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ABSTRACT

STRUCTURAL VIOLENCE IN WATER PRIVATIZATION INITIATIVES IN LATIN AMERICA

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This thesis looks at water privatization initiatives, and particularly concessions, in Latin America from the perspective of structural violence. Ten cases are evaluated and two (Cartagena, Colombia and Tucuman, Argentina) are looked at in greater detail. The goal of this thesis is to gain a different perspective and definition on how 'success' is defined in water privatization initiatives. My findings guide me to a new definition: 'Success' in the status quo fundamentally lacks public participation and consultation, possesses inappropriate subsidies and insufficient efforts to connect illegal settlements, does not guarantee access to water and fails to make adequate conservation efforts that are not financially viable.

I. INTRODUCTION

The Sustainable Development Goals (SDG) agenda, adopted in September 2015 at the most recent United Nations Summit on sustainable development, reminded the world of the importance of access to water and sanitation. As it had been one of the Millennium Development Goals (MDG), goal number six of the SDG is to “Ensure access to water and sanitation for all.” Goal six sheds light on both the improvements that have been made since 1990 – “206 billion people have gained access to improved drinking water sources” (Nino 2015), as well as the problems that still persist with 663 million people lacking access to these services (approximately 1.8 billion people have only access to a contaminated drinking water source (Nino 2015)). The targets of goal number six imply that water is priced as an economic good by using the adjective ‘affordable’: “affordable drinking water for all” (Nino 2015). Some of the other targets of this goal include “special attention to the needs of women and girls and those in vulnerable situation”(Nino 2015) and reduced pollution and improved efficiency by 2030. The targets of goal number six, along with other considerations, are factors that are identified and explored in this thesis and are part of a new way and vision to look at how to attain goal number six of the SDGs.

Interestingly, the aforementioned improvements made since the 1990’s coincide with a wave of water private sector participation. Reforms of the public sector in

developing and transitioning countries, were encouraged by development agencies and international lending banks “were a significant component of structural adjustment lending conditionality in the water sector in the early 1990s” (Bakker 2013). Moreover, the Dublin Convention of 1992 qualified water as an economic good and, accordingly, facilitated the blooming of private sector participation in the water sector. Although private sector participation in the water sector has been controversial, and marred by failures often garnering worldwide publicity, privatization is still practiced and thriving. In the year 2000, approximately 94 million people were served by private operators; this number jumped to 160 million people by 2007 (Marin 2009). The inherent contradictions on the topic of water privatization, and its continued implementation and impact in the developing world, fascinates me and is my motivation for exploring this topic.

“Privatization in the water sector involves transferring some or all of the assets or operations of public water systems into private hands” (Gleick et al. 2002). Private sector participation falls within the definition of privatization and is the involvement of the private sector in some form and at some stage of the distribution of the water services (Nickson 2001). Essentially, it is the “construction, operation and management of the publicly owned water systems by private companies” (Bakker 2007). Private sector participation is an umbrella term for various forms of contracts such as service, management, build-operate-transfer (BOT) and concession contracts. Concessions are when “the state (or municipality or other public entity) delegates to the private sector the right to provide a service, yet retains some control over the sector by incorporating in a concession contract or license the terms and conditions—including the rights and

obligations of the service provider—that will govern the infrastructure project or company” (Guislain and Kerf 1995). Concession contracts are the particular focus of this thesis and have been advocated to be the best suited solution to improve water coverage (Clarke, Kosec, and Wallsten 2008; Guislain and Kerf 1995).. The water source use for privatization depends on the geography and topography of each respective country. Typically, rivers (and their reservoir dams), or underground water sources (aquifers) are utilized.

Presently, the performance of water privatization initiatives is being defined and rated by the World Bank based on a limited number of factors: performance and operational efficiency, which are mostly technical and financial indicators. Academic literature has shed light on other factors that could be taken into account to define the performance, such as public participation, yet no comprehensive and holistic definition exists. The aim of this thesis is to provide a different perspective on the definition of ‘success’ in water privatization initiatives, encompassing the neglected structural factors and indicators into the definition and evaluation of privatization schemes; answering, **how is success defined in water privatization initiatives in Latin America?**

Answering this question provided me with a supplemental definition of success focused on structural violence.

Presently, the current status of water privatization initiatives is being defined and rated by the World Bank, based on a limited number of factors: performance and operational efficiency, which are mostly technical and financial indicators. I find that social sphere, human rights concepts and environmental aspects are often forgone in the

assessment of these initiatives, and, oddly, signs of structural violence are repeatedly present in the on-going deemed 'successful' initiatives. . I argue that the new offered definition should be combined with the current (World Bank's) definition of 'success' to assess future mandates in a comprehensive manner, to ensure lasting and stable success

If privatization schemes are to continue being implemented, the presence of systemic structural violence needs to be acknowledged and addressed. As John Galtung points out in 'Violence, Peace and Peace Research', structural violence can lead to direct violence, as was illustrated with the protest in the Cochabamba, Bolivia that erupted in 1999, leaving many injured and one person dead.

I chose to look at water privatization in Latin America specifically for two main reasons: it possesses over 30% of the world's fresh water (making it a particularly attractive target) and has received the most financial investment (Giupponi and Paz 2015; Wilkinson 2010; Bakker 2013). From 1990 to 2015, the investments in private sector participation amount to \$83 million. Latin America and the Caribbean, in particular, account for nearly 50% of this total, arriving at \$41 million over this time horizon. Of the aforementioned capital invested in Latin America and the Caribbean, 11% is attributable to cancelled or distressed projects. The majority of the water and sanitation market is controlled by a small number of largely western international firms (e.g. Suez, Veolia Environment, Bouygues RWE Thames Water, Bechtel, TECVASA-Can de Isabel II, Aguas de Portugal and Aguas e Bilbao, and Aguas de Barcelona (Wilkinson 2010; World Bank 2015).

To answer my question, the first component of my literature review in the next chapter examines the controversies around the issue of water privatization: the neo-liberal, the communalism and the human right to water aspects of the debate. The most common pro-privatization argument is that private companies are better suited for the job because of their expertise and experience in the provisions of water and wastewater services (Baer 2014; Foshee et al. 2008). Conversely, the opposing side argues that private firms do not have an interest in the water itself or the well-being of the society but are simply interested in financial gains and profits. However, the picture is not black and white, and there are nuances to both sides. For example, governments that have a fundamental duty to provide these basic services (Gleick et al. 2002) and are unable or unwilling to do so, do not have society's well-being at heart. It can also be argued that the economic pricing of water will inherently lead to conservation, making the population more conscious of the volume of water utilized, effectively reducing wasteful consumption. Additionally, because the management of the supply system is the responsibility of a private firm, who is responsive to its customers and shareholders, efficiency and profits can work together (Bakker 2007). However, it is also plausible that a firm interested in profit can encourage consumption of water. From a human right to water perspective, in 2010 the United Nations Human Rights Council adopted the vital principal that a "human right to safe drinking water and sanitation is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity" (United Nations 2011). Privatization can hinder that right by cutting off water

supply if bills are not paid. Even though the debate is contentious, the reality is that privatization schemes are highly likely to continue to be implemented. We need to identify the missing components that affect the outcome of privatization schemes and address them in a holistic manner.

The second part of the literature review looks at what diverse academics and World Bank reports have written on the subject of water privatization and which spheres are evaluated in these writings. The second part of the literature review (Chapter II) helped me determine which spheres (and their sub-categories) should be included in a broader definition and evaluation of privatization initiatives. I identified five spheres: Institutional Capability, Economic, Human Rights, Society and Environment. Each sphere has between four and five sub-categories. The Institutional Capability and Economic factors are often discussed by the World Bank and academics, although the academics tend to focus more on the human right, societal and environmental aspects. As far as the economic factors are concerned, they are often spelled out in the contract signed between the government and private firm and also included in the World Bank's evaluation.

The subsequent chapter (Chapter III) is the methodology section which explains why I chose to focus on Latin America and provides a background of the ten cases I selected, as well as how I evaluated each case based on the factors identified in the second part of the literature review. The ten cases selected were all concessions, as it was the predominant type of contract in Latin America in the 1990's (OECD 2009). From the definition of concessions provided above (and in the Appendix), because the terms and

conditions of contracts vary from one model to another, the concessions that were studied have variable set ups. Expansion of coverage is most often the goal, yet concessionaires can also be selected based on the investment amount proposed, as opposed to the number of new connections (expansion of coverage) promised. If degraded infrastructure is the more salient issue while coverage is already high, a concessionaire can be selected on proposed investment. However, if coverage is low, then the number of connections proposed might be the factor on which the government bases its decision to award the contract.

The next three chapters are the substantive chapters of the thesis. The first analytical chapter (Chapter IV) presents the emerging patterns when analyzing the factors for each of the ten cases. I found that independent of a concession's standing as successful or not successful, there is a lack of public participation and/or consultation in most of the concessions. Other sub-factors, such as the protection of the human right to water and the protection of the environment, through precautions such as conservation (sub-factor) are insufficient in taking precautions against environmental degradation and combating climate change. For example, although the constitution in certain countries country's constitutions acknowledges a human right to water, it does not guarantee that service will be provided in the event of non-payment of fees for water. From a conservation perspective, even the 'most successful' concession cases seem to be lacking some of the needed long term vision to combat climate change.

From this preliminary analysis, I chose two cases to examine in greater detail: Tucuman, Argentina, and Cartagena, Colombia. In the second substantive chapter, I

examine the advent of water privatization in these two countries and its impact on civil society. Interestingly, I find that the mechanisms for public participation in Cartagena are in place but idle, whereas in Tucuman the absence of these mechanisms led to their formation, through protests that became and are a form of public participation.

The following and final chapter looks at the remaining factors: service area of the concessions, the role of the human right to water, the subsidy schemes, whether improvements were Pareto and the environment. Interestingly, I find that the service area does exclude a portion of the population of Cartagena. Even though one study by Marin mentioned the municipality's provision of water tankers, these deliveries seem to be intermittent and unreliable. Moreover, the coverage statistics for the provision of water and treatment are not reflective of reality for those living outside the municipalities geographic legal limits. Further, other questionable issues surface, such as auditing in Cartagena. In general, even though signs of structural violence emerge in this chapter, the 'successful' case (Cartagena) considered has less structural violence than the 'failed' example (Tucuman). My conclusion will discuss the role of the structural violence elements and their respective weight into the current definition of 'success'.

The conclusion of the thesis answers my question: **How is success defined in water privatization initiatives in Latin America?** Success in the status quo (typified by the World Bank definition) fundamentally lacks public participation and consultation, features inappropriate subsidies and insufficient efforts to connect illegal settlements, does not guarantee access to water and fails to make adequate conservation efforts that are not financially viable.

From the comparison of the ‘failed’ and ‘successful’ case and from a structural violence perspective, it seems that ‘success’ is public participation on paper; that the human right to water is not protected but that efforts are made to protect the vulnerable population and impoverished residents in the out of service areas. Finally, improvements often leaves one of the parties to the concession worse off (such as the government, the concessionaire or the society). From an environmental perspective, ‘success’ cases have conservation measures in place, which adheres to the market environmentalist vision (a way of addressing environmental problems through neo-liberalism reforms) but the measures stop when they do not profit the concessionaire

Overall, my research lead me to a different and more comprehensive definition of success in water privatization initiatives. If goal six of the SDGs is to be reached and privatization is practiced to help attain the targets of goal six, the supplemental definition of success that I offered should be taken into account. A new approach, which widens the number of factors to be included when assessing and defining success, leads to a comprehensive and new way to look at success. This new vision should be part of goal six of the SDGs.

II. LITERATURE REVIEW

1. The Two Sides of Privatization

Introduction

With a growing world population, Earth's resources have been progressively depleted and constrained. Water is a unique renewable natural resource, whose accessibility is compulsory for human survival. Presently, a minute three percent of the world's water is fresh with only one percent accessible for utilization.

Rapid population growth and urbanization puts an enormous amount of pressure on the government's responsibility to provide access to safe drinking water and sanitation to its citizens through adequate infrastructure and sanitation services; "Governments have a fundamental duty to see that basic services, such as water, sewerage, and energy, are provided to their people" (Gleick et al. 2002). Accordingly, the inability of the government to provide these services adequately has provided an opportunity for companies to capitalize on the provision and administration of these services.

Water privatization initiatives have been increasingly pushed on developing countries by multi-national corporations. The World Bank, private companies, bilateral agencies and governments (Bakker 2007) began advocating for water privatization initiatives in the 1980's. These entities espoused the notion that private companies would be better suited for the job because of their expertise and experience, especially in the implementation and provision of water and wastewater services realm (Baer 2014; Foshee et al. 2008). This view was supported by a combination of underlying trends including: growing populations, industrialization and urbanization and an emerging

middle class in developing economies, such as Latin America (Wilkinson 2010). Further, South America's abundant supply of freshwater made the location irresistibly attractive for water privatization companies.

Water privatization initiatives are a controversial topic: some's failures have been well publicized, such as Cochabamba's Water War, while others are still ongoing and deemed 'successful'.

Proponents of water privatization argue that it is the only solution to provide access to safe drinking water and sanitation facilities to the populace of developing countries. Conversely, opponents of water privatization contend that corporations are motivated by profit rather than addressing the population's needs; further, the public sector has no ulterior motive other than to provide for its citizens.

Typically, suspended initiatives are considered 'failed' while on-going instances are considered 'successful'. However, these adjectives are only determined in the business sense of the contract upholding or not, and are coined by international loaning banks.

Water privatization is a polarizing subject in the public sphere, making it a compelling topic to study and analyze. The intricacies and various subjectivities of the stakeholders, validate the importance of understanding and studying water privatization initiatives in a comprehensive, impartial manner.

The inherent contradictions on the topic of water privatization fascinate me. Therefore, I will study **how success is defined in water privatization initiatives?**

I will look at which factors are considered to be significant when a water privatization initiative is considered ‘successful’ and which are excluded, in addition to which are considered less important or not affecting the ‘success’ of initiatives.

This approach will give me a different perspective on ‘success’ in water privatization initiatives and will provide a deeper understanding of definitions and benchmarks characterizing ‘success’ as well as identifying factors critical to ‘successful’ implementation. Privatization schemes are still being implemented around the world and if broad acceptance is desired, there must be a harmonization of what defines ‘success’ and ‘failure’.

Tragedy of the Commons

The roots of privatization advocacy were established in 1832 when Forster Lloyd delivered two lectures at Oxford University on the checks to population. However, the genesis of privatization occurred during the ‘enclosure movement’ of the 17th century when John Locke argued that property only became so, when the natural resources on it were transformed by labor (Shiva 2002).

The concept of the commons was first coined and illustrated by W. Forster Lloyd (Lloyd 1832) in his lectures. Lloyd’s central concept was inspired by Malthus’ population theory, which proved, with empirical data, that population increases exponentially but food production increases only arithmetically. From Malthus’ theory, Lloyd delivered his lectures and highlighted the problematic consequences of a growing world population and limited commons – a point of saturation of the commons would be reached unless some population checks were put in place. Although Malthus’ theory did not uphold

following the Green Revolution, the concept of the commons limited ability to sustain our population in the future could hold true, until another food production revolution happens. Today, certain irrigation practices, products of the Green Revolution, threaten soil productivity (Gleick et al. 2002).

The same principals apply to water given its finite nature, despite technological advances in desalination (typically economically inviable in developing nations).

The commons can broadly be defined as natural resources that are shared by a community.

But it was Garrett Hardin who made the concept of the commons popular and coined ‘the tragedy of the commons’. As Lloyd did, Hardin used the example of the herdsman’s to illustrate the rational of the human. In this case the herdsman intuitively adds cattle to the pasture because he can and it would benefit him, although might be detrimental to both the pasture and the other cattleman. This example illustrated the rational nature of the human to use the commons to his benefit.

Like Lloyd, Hardin acknowledged the limits of the commons and the altruist nature of the human. But it is Hardin who coined the idiom ‘Tragedy of the Commons’, although we could argue it was implied in Lloyd’s lectures on population checks.

For Hardin it seemed inevitable that in a society based on freedom to be a rational individualist, these freedoms would eventually “bring ruin” to the human race. (Hardin 1968)

Therefore the Tragedy that Hardin describes goes both ways: the commons will reach a point of saturation but also humanity itself will suffer from these limits. To

Hardin, unless a cap is put on population size, the commons per capita will continue to decrease until individuals cannot survive.

Therefore Hardin like Lloyd proposed the second best alternative: Lloyd called it enclosure (Nixon 2012) and Hardin called it privatization (Hardin 1968).

Conversely, Amy Sinden wrote an extensive article about the ‘tragedy of the commons’ and why, although the enclosure/privatization argument of Hardin or Lloyd worked for their example of the herdsman and his pasture, these enclosures are not realistic solution, except maybe for land/private property.

Through various examples, Sinden proves that most of the commons boundaries are physically determined rather than legally, and therefore externalities (e.g pollution) will not only affect the legally defined area but the entire physical space. Another argument of why Hardin’s herdsman example isn’t valid for *all* the commons is what she calls the pure consumption problem. (Sinden 2007). Following the logic of the author, in the realm of privatization, we can illustrate the pure consumption problem — let’s imagine that an underground aquifer was divided among X number of families and that each withdrew water at their own rate without affecting the water levels in the others part, then the privatization framework would seem to work. However, what if that year it only rains on the northern part of the aquifer and only replenishes the underground aquifers of these northern parcels, then privatization would not work for pure consumption problems.

In other words, Sinden simply highlighted that commons have natural physical borders that cannot be delineated by law, and even when they are, problems of

externalities and pure consumption problems do not make privatization a viable alternative. (Sinden 2007)

Liberalism/Neo-Liberalism

Adam Smith's influential book entitled "the Wealth of Nations", further supported Hardin's and Lloyd's ideas. Smith describes that individual human acts are motivated by economic private gain, and "only through this gain did individual contribute to the common prosperity of society" (Morrison 2006). Thus, Smith, further demonstrates that individuals are only motivated by economic self-interest and do not feel obligations towards the society, because they see their actions as benefiting the greater public, in the economic utility sense – the essence of liberalism.

Liberalism is a "technical solution" to the problem of population increase. Hardin defines 'technical solution' as a temporary solution or fix. Hardin cites Adam Smith's concept of privatization "The tragedy of the commons as a food basket is averted by private property" (Hardin 1968) as a technical solution.

Neo-liberalists embrace Hardin's thinking and never fail to bring up the 'tragedy of the commons' as justification for their actions. Neo-Liberalism just like economic liberalism emphasizes the need for unregulated economic market but adds a new dimension that expedites the liberal economic process by encouraging privatization and deregulation. Neo-liberalists deem privatization necessary to avert the 'tragedy of the commons'. While Lloyd talked about enclosures as improvements (term used by the landlords of his time); neo-liberals, who's argument are support by this view, argue that

un-privatized commons are a missed opportunity of development, through free market (Nixon 2012).

Neo-Liberalism in Latin America emerged out of the 1970's economic crises "that precipitated a period of restructuring and transformation and ushered in a new model of global capital accumulation now known as neo-liberalism" (Robinson 2004). Proponents of neoliberal policies argue that it helps nations integrate the global economic market faster and makes the nations attractive to foreign investment, a win-win solution. In Latin and South America, the Inter-American Development Bank is the most visible advocate.

However, in Hardin's view, the neo-liberals took his argument a bit too far. Hardin tried to re-write his article with the title 'Tragedy of the **Unmanaged** Commons' where he lamented that unregulated commons were no better (Hardin 1994), to his disappointment this never gained the attention that the 'Tragedy of the Common' had garnered. Hardin remains the argument of neo-liberalism advocates. However, all of the authors mentioned above: Lloyd, Smith or Hardin and the neo-liberals advocate for privatization as the solution to prevent tragedy.

Communalism

Murray Bookchin is the father of Communalism theory, which advocates the need to reconstruct our society along ecological lines and the disappearance of all contemporary social problems would ensue, since all the root of these problems are of anthropogenic source (Amargi and Amargi 2016). Bookchin advocated for Social Ecology where the "Social and the natural must be grasped in a new unity". (Morris 2009)

Brookchin and Shiva argue that forms of communalisms have existed throughout the course of history and are still apparent in some form today in select communities; where a social economy to provide the basic necessities of life has developed.

Brookchin's main issue with the capitalist system is its inherent tendency to be anti-ecological 'not because humans were inherently the most destructive parasite on earth; rather it was due to a capitalist system that was in its very essence geared to exploitation, competition and to ruthless economic expansion ...leading to the expansion of commodity relationships into all areas of social and cultural life'. (Morris 2009)

Accordingly, privatization water companies commoditized water simply for the profit to be made from it, but have no interest in the water itself. Water is another victim of the capitalist system, which impedes our society, to be built around ecological lines because the most basic of our needs is commoditized. Commoditized for profit, not for conservation or sustainability.

Those who argue for communal management do not believe that states nor private entities are capable of managing water, as each locality associates different cultural and spiritual dimensions to water that vary geographically and thus only communities who collectively manage their resources can do so in a holistic manner. Further, only if communities are responsible for their water will ecological and health functions be protected (Bakker 2007)

Water Paradigm

The commodity view is the view that those who accept the Dublin Convention and acknowledge that water has an economic value. As mentioned above, they believe

that pricing will encourage conservation “users will cease wasteful behavior as water prices rise with increasing scarcity” (Bakker 2007). Additionally, because the management of the supply system is the responsibility of a private firm, who is responsive to its customers and shareholders, efficiency and profits can work together.(Bakker 2007)

Vandana Shiva, on the subject of water wars explains the discrepancy of the two ways water is understood. This paradigm is an important concept for understanding the acceptance or rejection of water privatization initiatives. On one side water ‘is nature’s gift’ and therefore water is free. On the other side of the spectrum water ‘can be appropriated and sold’, therefore it is not a gift but a commodity. (Shiva 2002)

“Water emerged on the international agenda at the Mar del Plata U.N. Conference on Water in 1977, where this resource was defined as a common good” (Wilkinson 2010).

In international Human Rights law the underlying assumption of access to drinkable water has always been present. However it is only in 2002 that the Right to Water started to appear and be defined.

In 2002, the United Nations Committee on Economic, Social and Cultural Rights adopted its general comment No. 15 on the right to water as the right of everyone to have “sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses” (UNCESCR 2002). Note here water is defined both as a right and commodity. However this general comment was not legally binding.

International Convention such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Convention on the Rights of the Child and the Convention in the Rights of Persons with Disabilities all state that the right to enjoy access to potable water (Giupponi and Paz 2015)

Almost a decade later, the right to water became legally binding when in 2010 the United Nations Human Rights Council adopted a resolution affirming that “the human right to safe drinking water and sanitation is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity.” (United Nations 2011)

With the adoption of the human-rights based approach, the rapid population growth and urbanization in the developing world puts an enormous amount of pressure on the government’s responsibility to provide access to safe drinking water and sanitation to its citizens through adequate infrastructure and sanitation services.

Although defined from a human-right based approach in 2011 it was defined from an economic approach in 1992, arguing that economic pricing would encourage sustainable use “Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources” (“The Dublin Statement” 1992). Pricing water was seen as a solution to promote a conservative use of water, as well as to promote the importance of quality, potable water. This is an argument that is used by the markets environmentalism who argue that neo-liberalism reforms address environmental problems (Bakker 2007).

Conclusion

In her article on water privatization initiatives in Chile, Madeline Baer gives more depth to definition of the human right to water (the narrow and broad definition). The narrow definition is based solely on access to water, safety of the water and its affordability. But the broad definition of the human right to water includes the social participation in the decision making process of the management and governance of water. (Baer 2014)

The distinction between the broad and narrow definition of Baer, resonates with Galtung's notion of structural violence. According to Galtung, violence can either be direct or indirect: structural, when there is direct violence there is obvious manifestation, while indirect violence translates into negative peace; and can be equated with social injustices. From the water privatization perspective, positive peace would be an implementation of privatization that does not create or exacerbate social inequities; while negative peace is when privatization looks to be working and is ongoing although affecting indirectly, through the structure of the privatization scheme (built-in), individual or social classes' rights or access to water for social or cultural purposes (Galtung 1969).

2. Identification of Factors

Development banks that encourage privatization in developing countries have been defining the 'successes' of these initiatives in a narrow sense. Currently the World Bank considers a water privatization initiative 'successful' if the overall performance is generally satisfactory and there is continuous water coverage. Overall, projects deemed 'successful' have an improved operational efficiency and service quality (World Bank 2014).

The goal of this thesis is to gain an understanding of the definition of ‘success’ and ‘failure’ based on additional factors that are not taken into account by the development banks but have an influence on the ‘success’ or ‘failure’ of an initiative.

The existing literature on privatization gives us a glimpse into what a broad definition of ‘success’ could include. Various articles touch on different spheres and aspects of water privatization initiatives; nonetheless, no article encountered includes all these spheres into the definition of ‘success’ or ‘failure’ of water privatization.

Discussed below are some of the spheres examined by various academics. They fall broadly into institutional capabilities, economics, human rights, society, and environmental impacts. These spheres are not distinct from each other, and some of their aspects (sub-categories) can be associated with one or more spheres. For the purpose of this thesis and literature review they were however divided into categories and sub-categories, in order to understand the importance of the role that each play and their weight in the outcome of a privatization initiative’s identified ‘successful’ or ‘failed’.

Institutional Capability

The first sphere identified in various academic articles and by development agencies on the subject of water privatization is institutional capability, which has to do with the government’s abilities and its institutions to be strong and transparent.

Negotiating Power

Before a privatization scheme is implemented, a request for proposals is submitted and the interested firms submit a bid to the government, outlining their plans on

how they intend on taking on such a project request. The bidder with the most appealing proposal is typically awarded the contract.

Gleick and *al.* underline the importance of the government to be a good negotiator at the time of the contract's writing although they find that in general "governments of developing countries are not experienced in negotiating often very complex contracts" (Gleick et al. 2002). As mentioned above, it is important to have clear indicators and goals defined before the bidding process and/or in the contract.

In Manila, the government had done its due diligence before the bidding process: prior to allowing potential contractors to bid, the government reviewed and evaluated each's financial projection. Once the contract was awarded to the winning concessionaire, there were clear guidelines on pricing (how and when rates could increase) and coverage goals to be achieved in time (Kapoor 2015). In La Paz-El Alto the request for proposal (the proposal that invites bidders) set out the pricing and tariffs, as well as the progressive expansion of the sewage system with a timeline. Once the bidding process started, the concessionaire who was awarded the contract was the bidder who proposed the highest number of connections by the end of 2001 (Komives 1999). Gleick and *al.* however think that in this particular contract, which contained a 'service area' (on which the bidding and contract are solely focused) and a 'non-service area' (a zone exclusivity for the concessionaire) could hinder the service to the 'non-service area' communities (Gleick et al. 2002) and affect equity. The non-service area, in this case, was awarded in the contract to guarantee that the concessionaire would have monopoly of

providing these services in that area; however, there were no clear rules on how to enforce this since the written contract was only enforceable in the ‘area of service’.

In both these cases the government was a good negotiator and took into account the public’s interest: the Manilla contract was more geared towards expansion and continuous coverage (it was only 17 hours per day previous to privatization) and in La Paz-Al Alto the contract was geared towards coverage in the lower income communities (Kapoor 2015; Komives 1999).

In Bolivia, Cochabamba only received one bid, and was thus awarded to a subsidiary of Bechtel Corporation. With only one sole bidder Aguas del Tunari, the concessionaire, had the upper hand in the negotiation of the contract with the government. In consequence, the government, representing the people, had barely any bargaining power, which negatively affected the citizens as the rate of water was allowed to increase from 15% to 17% per year for the next 40 years (Kapoor 2015).

Clearly, the government’s ability to negotiate depends on the number of bidders, which affects the government’s leveraging power during the write up of the contract. However, it doesn’t solely depend on the number of bidder, as long as the proposal outline clearly on which factor the bidders will be considered.

Regulatory Agency: Independent, Transparent and with a Monitoring Role

Another factor included in the institutional capability category is the presence of a regulatory body. Regulation is necessary in privatization scenarios as it gives legal standing to both parties of the contract. As Alexander Loftus and David McDonald demonstrated in their article entitled “Of liquid dreams” the need for a strong

independent and insulated from political interference body is a requisite to avoid conflicts of interest (Loftus and McDonald 2001).

Tanya Kapoor in her three case studies of Bolivia, South Africa and the Philippines incorporates Loftus and McDonalds' theory of the need for an insulated from political power regulatory agency. She finds that in Bolivia the government did create a regulatory agency; however, it was not insulated from political control and ended up being ineffective. At the first signs of discontent in the Cochabamba population the regulatory agency tried to have talks with Aguas del Tunari, but the government of Bolivia immediately stepped in and halted the talks, as it was afraid these might jeopardize the contract (Kapoor 2015). Thus, although a regulatory agency was appointed, it had no power and was therefore not insulated from political control. In South Africa, shortly after the end of Apartheid, the newly elected government was setting up a federal system where it created local municipal governments, which were then the appointed regulators for the water privatization endeavor. Consequently, the regulators were not only directly tied to the government but also lacked monitoring expertise and heavily favored the private sector instead of its citizens. Even though the municipal government (and regulatory agency) had the means to subsidize the citizens, they did not do so and used its money in the form of tax breaks (Kapoor 2015). Interestingly enough, Kapoor found that in Manilla, Philippines, the oversight was a hybrid of the government and a private firm. The government set up a regulatory authority, which was funded by the concessionaire, making the regulatory authority affiliated to both bodies.

It seems that Loftus and McDonald's argument for an independent and politically insulated regulatory overseeing body holds up. Manila found an alternate solution, but the 'failure' of South Africa and Cochabamba point to the evidence that political interference or links to the government were detrimental to the regulatory agency's role.

Another argument for the need to have a strong independent regulatory agency to oversee the privatization contract is Clarke *et. al.*'s. From a political standpoint, privatization is a risky business. The change in government and political atmosphere can terminate a contract under the pretext that it was awarded by the previous government. This raises the importance of government oversight: when there is one, it should be independent or insulated from political control, or else all investment made by a privatization company such as network infrastructure is prone to expropriation (Clarke, Kosec, and Wallsten 2008). Therefore not only is the oversight beneficial to the society but also to the private firm, by decreasing its risks to lose its previously made investments.

Another one of the regulatory agency's tasks is to **monitor** the concessionaire's actions and ensure their compatibility with the concession agreement.

As mentioned above, the agency should be politically independent in order to have some leveraging and negotiating power with the concessionaire. This was not the case in Cochabamba, Bolivia which left the regulatory agency unable to discuss the contract with Aguas de Tunari, especially because the legal contract already stipulated the economic structure of the deal (Kapoor 2015).

In addition to being politically independent, the regulatory agency should also have monitoring expertise, unlike what happened in South Africa (Kapoor 2015).

Therefore not only should the agency have the power to enforce regulation (Gleick et al. 2002) or else it risks not being taken seriously by the privatizer (Komives 1999) but there should also be performance indicators defined in the contract. Weak monitoring can lead to “ineffective service provisions, discriminatory behavior or violation of water quality protection” (Gleick et al. 2002).

As is the case in both Manilla (Philippines) and La Paz-El Alto (Bolivia), the contracts awarded stipulated coverage goals to be achieved, which are quantifiable goals that can easily be monitored. In La Paz-El Alto it could have been hard to monitor, because it is not known exactly how many houses are in El Alto or La Paz. However the Superintendent of Water (the regulatory agency) used projected population numbers in order to convert the fixed percentage into a number goal on which both the Superintendent and Aguas Illimani agreed on (Komives 1999).

If the goals are not clear or fixed, such as when there are no deadlines for certain goals (e.g. service to specific population density), the contract is harder to enforce. Therefore clear performance indicators are necessary in order for effective monitoring to take place. Overall, the stronger and more powerful the regulatory agency, the more incentivizing it is for the concessionaire to abide by the standards required by the contract. For example, in the La Paz-El Alto concession, there were penalties if the concessionaire failed to comply with the set goals of expansion. Aguas Illimani was fined

by the regulatory agency for unscheduled interruptions of the water service, which exemplified the Superintendent's strength and credibility (Komives 1999).

Transparency through public information and involvement is yet another way to keep the public educated on the origin of their potable water and the standards in place to monitor it; but also to put pressure on the privatization entity. In Sao Paulo, Brazil the "introduction of pollution tests and public reporting has led 95% of polluting industries to install waste-treatment units" (Gleick et al. 2002) to avoid being fined but also have their reputation safeguarded. In Manila, the regulatory authority is deemed transparent as its office is accessible to the public and their data is public on their website (Kapoor 2015).

In Kenya, the National Monitoring and Information System collects information on the water services and makes it available to the public. This allows for the public to be involved and informed on the subject and the opportunity to voice their concerns at public consultation meetings. This was the result of the Water Act of 2002 in Kenya which included mechanisms for public participation (K'Akumu 2006).

The public availability of information is important for the dispute resolution process as it ensures that the public is not ill-informed and has the correct data to support their claims. When the water provisions change from the public to the private sector, the dispute resolution process changes from a political one to a legal one. It is important to have a clear dispute resolution process from the start, which ideally includes local stakeholders (Gleick et al. 2002).

In general, for privatization schemes to be smoothly implemented and accepted by the public, the government should 1) have the upper hand in negotiations (which isn't the

case when there is only one bidder) 2) have a strong independent regulatory body with monitoring expertise, which is insulated from political power and 3) public information should be available to instill trust in the population and potentially include them in dispute resolution processes when their concerns are valid and backed by public data.

Economic

When talking about water privatization, the most discussed aspect of privatization in mainstream media is the economic aspect of it (e.g: rates and pricing of water). The economic side is also used in the definition of ‘success’ by development banks. For example, the World Bank measures ‘success’ with operational efficiency indicators which include labor productivity, bill collection or cost-recovery (Marin 2009). Another aspect of the economic factor or affordability of water is the influence of authorized competition (or lack thereof).

Competition

In general there is not much space for competition in the water privatization sector, especially past the bidding process, even though competition increases the efficiency of a company and incentivizes it to perform better or at least be the most appealing solution to consumers. Nowadays, the telecommunication industry is an example of a public utility that, when privatized, allowed for competition for consumers to get the best rate or to simply choose their preferred alternative. In Mexico the contracting rights of different parts of the city were awarded to multiple privatizers to stimulate competition and thus improve service (Gleick et al. 2002). In Manila the city was divided into two zones where two different contractors operate in the two sections

(east and west) of the city, which stimulates competition and incentivizes the concessionaire to best serve its consumers (Kapoor 2015).

However in most cases competition in the water privatization sector is almost non-existent, because two-thirds of the price of water supply accounts for the infrastructure and the same goes for the infrastructure of wastewater treatment (Clarke, Kosec, and Wallsten 2008).

Additionally, companies request exclusivity to make investments attractive, although this does suppress competition and risks the concessionaire equitable water distribution (Gleick et al. 2002; Komives 1999). If the concessionaire is allowed to provide only one type of service (e.g. in-house vs community wells) and if the demand is not high enough, the privatizing firm risks financial jeopardy. In this situation, a contract can remediate to this through an exclusivity provision which gives monopoly to the concessionaire and the type of water provision allowed in the area granted by the contract.

In Cartagena, Colombia the government allowed for bulk supply schemes to ensure the provision of safe water in illegal settlements until the legality issues could be resolved and connections could be made (Marin 2009).

Lastly, the other competing alternatives are self-provision alternatives through pumped wells, rainwater catchments, septic tanks and cesspools; however they are usually too costly, low quality and time consuming and are therefore not always a viable alternative (Galiani, Gertler, and Schargrotsky 2005).

The only other form of competition could be bottled water, which is too expensive and therefore not really considered competition.

Rate and Pricing

Clarke et *al.* found that if the government interferes in the pricing by setting a benchmark, then coverage will be affected by this, since the privatization firm has less monetary incentive to expand the coverage (Clarke, Kosec, and Wallsten 2008).

It seems that prices should increase progressively in order to not exacerbate economic gaps in the population and achieve Pareto improvements - meaning that every stakeholder is better off or at least not worse off. Improvements are not Pareto if they intensify existing economic differences or restrict access or if the privatization company doesn't recover their costs. (Kapoor 2015). In general, Gleick and *al.* found that even the lower income population is willing to pay for their water and sanitation services if they know that they will receive new or improved and reliable services. (Gleick et al. 2002)

As mentioned earlier, in Cochabamba, the contract stipulated the profits that Aguas del Tunari was allowed to make per year, therefore increasing the rates abruptly and not gradually. The same went for South Africa where the contract's business model was "total cost recovery" and did not allow for incremental price hikes but rather abrupt price hikes in both cases. (Kapoor 2015)

However the "total cost recovery" model can work if the government is willing to pay subsidies or if the cost recovery business plan was thought of before the privatization initiative happened or if it does recover cost at a gradual rate. The World Bank considers cost recovery an indicator of 'success' (World Bank 2014).

In the case of La Paz-El Alto subsidies were one of the solutions found for the total cost recovery model and additionally the tariffs are renegotiated every 5 years in order to incorporate cost recovery (Komives 1999).

In both La Paz-El Alto and Manilla the rate of water was increased before privatization. In Manilla the government increased the tariffs because it was heavily indebted with the public water service and this rate was decreased as soon as privatization occurred which inherently led to the appreciation of the concessionaire in the public opinion (Kapoor 2015).

Labor

As mentioned above, one measure of efficiency used by the World Bank is labor productivity. Before being privatized, water public utilities are often overstaffed and when becoming privatized labor cuts are often implemented before or when the concessionaire takes over. The labor cuts are a double edged sword, as the number of employees will ultimately be reflected in the price of the water (Marin 2009); but labor cuts also affect the public perception and the social realities of those who lost a job.

Most of the economic factors mentioned are usually decided upon the contract write up. In general rates and pricing should increase gradually and be re-negotiated every five years or at a time of economic emergency. Additionally, lay-offs are bound to happen, as it is an indicator of operational efficiency, which the World Bank considers when rating the performance of privatization initiative.

Human Rights

Right to water

Some constitutions such as the ones of South Africa, Ethiopia, Kenya, Mexico, Bolivia, Ecuador and Uruguay have formalized the right to water. The Uruguay Constitution's act 47 states that "water is an essential resource for life" and "access to water and sanitation" are human rights (Giupponi and Paz 2015)

The right to "access to sufficient water" is formulated explicitly in the South African Constitution and the government has the right to undertake any reasonable legal means to achieve this (Constitutional Assembly 1996).

Some countries do not have the right to water verbatim in their constitution but have upheld the right to water through court decisions. In India, article 21 of the Constitution recognizes the right to life from which courts have derived the inherent right to water. In Colombia and Argentina, the right to a healthy environment combined with other international treaties of which they are signatories of are applied when constitutional courts are hearing a case on the subject of water access. In Argentina, the court upheld the right to water every time there were severe problems with supply, which was interrupted or sporadic, and ordered the provider to remediate to these issues of supply, which were especially dangerous for the ill, children or pregnant women (Giupponi and Paz 2015).

In other instances the water laws were changed to allow privatization. Kenya reformed their water management through the Water Reform Secretariat, where it was not the transfer of ownership that was the subject of the reform but rather the adoption of commercial practices in the utility sector. Therefore although ownership remains, the adoption of commercial practices meant that privatization could take place (K'Akumu

2006). In Bolivia, the government changed its water law dating back to 1906, which stipulated that any land owner owned the water on his property. By passing Law 2029, now all water in Bolivia was owned by the government and could now sell its right to water (Kapoor 2015). In the Philippines the Water Crisis Act was passed in 1995, which allows the government to privatize (Kapoor 2015).

For Bakker, privatization is compatible with human rights as long as there is a requirement that prohibits disconnection to residential consumers (Bakker 2007) and thus protects access to basic needs.

Access and Health

When in South Africa, residents could not make the payments of their bill, Siza (the concessionaire of KwaZulu-Natal), would not disconnect however it would decrease the amount of water volume delivered (Kapoor 2015). In Bolivia disconnection is allowed after 2 months of non- payment (Komives 1999).

In Argentina a court case on disconnection of water for non-payment was ruled as a violation of constitutional rights as well as an equity issue as the judgement ruled “the service must be provided in equal and uniform conditions” (Giupponi and Paz 2015).

When the prices went up in Cochabamba and KwaZulu-Natal (South Africa), hindering access to basic needs, the people in Bolivia took to the streets and the South Africans turned to other water sources, from streams and ponds. In 2000 a cholera epidemic broke out in South Africa. (Kapoor 2015). This highlights the importance to have access to drinking water and the potential risk of having an epidemic break out, which in the end costs more to the government to treat than it would have to simply

subsidize the water rates of those most in need. A point K'Akumu also makes in his study about the sustainability side of water privatization in Kenya: when the urban poor cannot afford their access to water, they have to turn to other sources, making the population epidemic outbreak prone (K'Akumu 2006).

Related to access to potable water and human rights, in a number of cases in Colombia, the right to water was upheld and disconnection forbidden if the missed payment was unintentional, especially when it concerned people who needed health care or were especially protected by the constitution (Giupponi and Paz 2015).

Overall, it is important to have clear and transparent guidelines for quality indicators and to ensure that there is a strong regulatory body overseeing water quality, as privatization entities have a tendency to underplay the potential harmful effects of low level pollutants that end up provoking long terms chronic diseases (Gleick et al. 2002).

Quality and Health

In South Africa, even the residents of KwaZulu-Natal who could still afford the water were disenchanted with the privatization scheme and relied in poor quality infrastructure (Kapoor 2015) dangerous to the health of the residents.

Other than having quality indicators and monitoring, Galiani et al. study the correlation between water privatization and water-related disease related to child-mortality and found that there was a decrease in child mortality after privatization occurred in Argentina. This study showed that although privatization is commonly believed to most negatively affect the poor, in terms of health and decrease of child

mortality rates it has actually been shown to positively affect them. (Galiani, Gertler, and Schargrodsky 2005).

In the absence of availability of data on water quality standards, we can rely on the child mortality rate before and after privatization has occurred.

Quantity

Although quantity is not defined in volume legally, some courts have upheld a minimum requirement. In South Africa a court ruling set the minimum at 25L/day per person. In Argentina a UN Final report of the Special Rapporteur 2004 set the minimum amount of water to be provided, whether provided by the government or by a service provider, to be between 30-100 L/day regardless of ability to pay (Giupponi and Paz 2015). The World Health Organization (WHO) sets the standard at 20L/day and 15L/day minimum in case of emergency (World Health Organization n.a.)

Essentially, from the human rights perspective, there should be clear guidelines for the quality of the water provided and these should reflect directly in health indicators such as infant mortality. Access and quantity should either be set by a country or should respect the WHO standards. Even though Bakker states that prohibiting disconnection of water makes privatization compatible with human rights, the need to add a minimum quantity of 20L/day would make it so (Bakker 2007).

Society – Pareto Improvement

As mentioned above, Kapoor uses the term Pareto improvement as a proxy of ‘success’ (Kapoor 2015). Pareto improvements are a good indicator of social justice, even though the definition of Pareto improvement is broader since it includes all the

stakeholders (the firm, the government and the society). Looking at all the stakeholders and seeing if they are in any way worse off, can give a good insight into whether they are social injustices. If the government can afford to subsidize its citizens without being in deficit, then the government is most likely not worse off. If the privatizing firm operates on a cost-recovery model (in the economic section) and runs smoothly, the firm is either breaking even or better off. The society's standing is also reflected with their access to subsidies, but can also be deduced with the presence or absence of mechanism that protect vulnerable population; additionally the connections made to the illegal settlements are also an indicator of Pareto Improvements.

Subsidies

Appropriate subsidies are one way to alleviate existing economic differences and are financed by the government; it is therefore important for the government to have a plan to provide for these subsidies (World Bank 2014). Subsidies reflect the government's ability to finance them and is therefore an indicator of Pareto improvements.

As Gleick and *al.* acknowledge there are appropriate and inappropriate subsidies: "On the one hand, economic theory acknowledged that they can be socially desirable and economically efficient in some circumstances, On the other hand, they are often applied as policy favors or social gifts far more widely than necessary to meet critical social goals." (Gleick et al. 2002).

In Cochabamba, the municipal government had to eliminate subsidies partly because it could not afford them, which led to the revolt of the citizens who in turn couldn't afford their water (Nadia Tecco 2008).

As mentioned above, in South Africa, although there was a local municipal government that could have subsidized the water for those who could not afford it (which would have prevented a cholera outbreak) the money went to the privatizers instead of in the form of tax breaks.

In Manila, Philippines, the subsidies were funded by a two-tiered pricing scheme where the wealthy consumer paid more, which subsidized the poor consumer's rate (Kapoor 2015).

Although it is clear that in-house connections are the money saving, time saving and convenient way to go, for some poor households it might be too expensive to connect to the water system because of high costs upfront and buying other expenditures such as a toilet or sink or if the resident is renting.

To take some of the burden off, Aguas Illimani proposed lower connection rates when the resident provided labor by digging the trenches.

Another model is the Cross-subsidies model where the government, industries and commercial pay more and the residential pay less. Additionally, the tariffs can vary on volume of water used which would incentivize conservation but also pay for the subsidies of those who use less water and are usually poorer (Komives 1999).

Overall, subsidies, if they are appropriate, seem to allow for the lower income population's basic needs to be met and thus for promote equitable water access.

Protection of Vulnerable Populations

In developing countries such as Kenya, privatization tends to negatively affect the gender dimension and particularly women and children. In Kenya the women bear the role of using the water for domestic use and children are most vulnerable to water related diseases (K' Akumu 2006).

In Colombia, a constitutional court hearing adopted the pro infant principle where “the right to water of children should be especially protected” (Giupponi and Paz 2015).

Within the vulnerable population are included those who do not own land titles and are therefore considered to be living in illegal settlements; yet they also need water.

Illegal settlements are common in developing countries and some never registered or obtain a property title which restricts them from getting the connected to the water system. In La Paz El Alto, the clause of coverage “to all buildings” in the service area seems to let believe that expansion is more important than the land title (Komives 1999).

As mentioned above, in Cartagena, Colombia, these populations were taken into account and the government made sure they had access to water. Additionally, in Bangalor, India, informal land tenants had a strong willingness to pay for the pipes as a way to legitimize their land tenure (Ranganathan 2014)

Public Participation

One additional way to measure the social justice is whether there are forums that are in place for stakeholders to voice their concerns and whether these actually take place or are only stipulated.

As mentioned above, this happens in Kenya where public consultation meeting take place; and so did it in Salta (Argentina) where the regulator conducted a public hearing (Saltiel and Maywah 2007).

Pareto improvement and social justices are crucial to identify whether there are any signs of structural violence within a privatization initiative. The lack of subsidies, the lack of public consultation and the dismissal of vulnerable population are all indices of structural violence.

Environment

Conservation: Volume Conscious Pricing and Water Reduction Losses

Conservation is a tricky subject, since conservation would be for the benefit of the ecosystem but also to the paying customer. However conservation and efficiency means that the revenues decrease for the privatizing entity (Gleick et al. 2002). Bakker describes Market environmentalism, which is also referenced in K'Akumu's article about Kenya, as the argument that privatization (which is economic pricing), leads to the efficient use of water and enhances water conservation (Bakker 2007; K'Akumu 2006).

I have identified two measures that encourage conservation -volume conscious pricing, and metered bills; along with one factor that indicates conservation - water reduction losses.

Volume conscious pricing is where tariffs vary depending on volume used (Komives 1999). This encourages consumers to not consume more than a threshold of cubic meters of water. This volume conscious pricing also differentiates between residential, industrial, commercial or governmental users; with the user having the lowest

tariff. This conservation measure is also part of the cross-subsidy model, where the government, industries or commerce will pay more and therefore pay their part in the subsidy model. Even though volume conscious pricing is usually part of the subsidy model adopted, it does encourage conservation from a price standpoint.

The installation of meters and the subsequent invoice of metered bills also encourages conservation from a price standpoint from the user; as opposed to estimated water bills.

Lastly, a reduction of water losses that can be measured with non-revenue water (NRW) (which is the difference between the water produced and the water billed) (Marin 2009) will give a good estimate of the leakage in the water system. Comparing the before privatization and post-privatization numbers will give a good indication of whether conservation is taken into account.

Quantifying Ecological Benefits, Combating Climate Change

The potential harm to the environment should be factored in and alleviated as much as possible instead of having to spend millions repairing the damage done. We need to ensure that downstream population's livelihoods will not be affected – this can be done with stakeholder involvement and participation, in turn allowing for multi-dimensional management of water (Gleick et al. 2002). Climate change will make access to drinking water more difficult (Giupponi and Paz 2015) and might ultimately increase the price of the water as it becomes scarcer.

Any harm to the environment should be avoided and conservation measures should be in place in a privatization initiative in order to prevent social injustices for the next generation, who will be dealing with the consequences of the decisions made today.

III. METHODOLOGY

The goal of this thesis is to provide a broader understanding and definition of what ‘success’ looks like in water privatization initiatives, particularly with regards to concessions, and answer the question: **How is success defined in water privatization initiatives in Latin America?**

I have chosen to look at the concession model because it was “the predominant contractual arrangements adopted in Latin America in the 1990’s” (OECD 2009) and advocated as the best suited model to improve coverage of water supply and treatment (Clarke, Kosec, and Wallsten 2008; Guislain and Kerf 1995).

1. Why Latin America

As mentioned above, this thesis aims to provide a broader definition of ‘success’ within the water privatization sector and going beyond the scope of the definitions set by international development banks’ definition.

Water privatization initiatives are increasingly being pushed on governments by these development banks, and additionally, governments who cannot keep up with their growing populations are turning to these solution.

However until the late 1970s – before the growing privatization trend – the economic model of Latin American countries was based on domestic market expansion, where profits were accumulated by the elites and redistributed through ‘populist programs’ (social safety nets) that benefited the working class. This economic model broke down when Latin America was hit by a financial crisis in the 1980s, an era that

would be known as the *Decada Perdida* ('the lost decade'). The crisis arose when the foreign debt that had accumulated in these countries became too high for them to be able to repay it. It opened the door, through reforms, for the neo-liberal economic model, a model which favors global capital and was the opposite of the domestic capital model that the countries of Latin American were based on (Robinson 2004). This, in turn, opened the door for privatization. Transnational capital entered the countries, and as mentioned above, it was often used as condition for debt relief or extra financial lending.

Growing population, industrialization and urbanization trends in developing economies –especially in Latin America countries with an important middle-income population in urban areas – have made the region an attractive target for privatization firms (Wilkinson 2010). In Latin America only about 20% of the population has access to potable water and wastewater treatment (Giupponi and Paz 2015).

Additionally, because of its natural riches in fresh water, Latin America alone possesses over 30% of the world's fresh water making it especially attractive (Giupponi and Paz 2015; Wilkinson 2010).

Moreover, due to climate change "it is expected that a significant portion of the population will be affected by water shortages" (Giupponi and Paz 2015). The impacts of climate change will make water access harder due to changing weather patterns that will cause floods and drought, which in turn, will decrease water quality and availability. Privatization initiatives will have to adapt to this phenomenon and water rates will increase (Giupponi and Paz 2015). More than half of the Latin American population who lacks access to potable water lives in rural areas. While those areas are highly dependent

on surface and groundwater sources, the rest of the population relies on rainwater collection, a method that is extremely vulnerable to climate change (Giupponi and Paz 2015).

According to Giupponi and Paz, the biggest issues facing the Latin American population are related to water access, affordability and pollution. The issues are correlated with an equity problem, where the poor pay more for their water than higher income households. The delivered water is of lower quality, increasing the probability of health issues related to water, “as in many Latin American cities, public services in the poorer, often newer, neighborhoods on the outskirts of the metropolitan area lag behind services in the wealthier and older central area” (Giupponi and Paz 2015 ; Komives 1999).

Not only must Latin American countries address and solve these issues but they must take into account the effects of global warming in order to alleviate scenarios of major water stresses.

2. Places Chosen

For the definition of ‘success’ to be the most comprehensive, I have chosen to look at concessions that were implemented around the same time throughout Latin America. I had to eliminate the Brazilian concessions, as my understanding of Portuguese is very limited while I am fairly comfortable reading Spanish documents.

To select the initial ten cases, I conducted research on the various concessions in Latin America during this time period and selected two per country. All of the

concessions are bundled water distribution and treatment are provided by the same operator.

Table one lists the chosen concessions, which are described in greater detail below.

Table 1. Concessions selected

Location	Start Date	Concessionaire	Source
Argentina, Tucuman	1995	Aguas del Aconquija, consortium led by Compagnie Générale des Eaux	(Lovei and Gentry 2002; OECD 2009)
Argentina, Salta	1998	Aguas de Salta (Domestic firm)	(OECD 2009; Saltiel and Maywah 2007)
Bolivia, La Paz- El Alto	1997	Aguas Illuminani, subsidiary of Suez	(OECD 2009; Komives 1999)
Bolivia, Cochabamba	1999	Aguas del Tunari, subsidiary of Bechtel Corporation	(OECD 2009; Kapoor 2015)
Colombia, Cartagena	1995	Aguas de Cartagena (AGUACAR)	(Barrera-Osorio, Olivera, and Ospino 2009; Memon 2003; Zhou and Smith 2009)
Colombia, Baranquilla	1997	TRIPLE A and Aguas de Barcelona	(OECD 2009; Sislen 2010)
Chile, Santiago	1999	Aguas Andinas, (previous name EMOS)	(OECD 2009; Dupres et al. 2002; Baer 2014)
Chile, Valparaiso	1999	Empresa Sanitaria de Valparaiso (ESVAL)	(OECD 2009; Marin 2009; Baer 2014)
Mexico, Cancun	1993	Aguakan or Grupo Mexicano de Desarrollo S.A. (Domestic firm)	(OECD 2009; OECD 2013; <i>PR Newswire</i> 1999)

Mexico, Aguascalientes	1993	Aguascalientes Water Company S.A., consortium led by Vivendi	(OECD 2013; OECD 2009; Castro 2007)
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Argentina, Tucuman

In 1995 Aguas del Aconquija signed a concession contract with the Tucuman municipality for a duration of 30 years. The concession, which was signed without ever consulting the civil society was short lived after complaints about tariff hikes and quality problem couldn't be ignored (Crenzel 2004; Ferro 2001; Post 2014). This case will be discussed in greater detail later.

Argentina, Salta

Salta's water concession was awarded in 1998 to a local domestic private firm – Aguas de Salta (NECON, S.A) for a period of 30 years. This is one of two cases, out of the ten chosen cases, where a domestic firm was chosen, even though its expertise did not rival these of the international firms. The local provincial government believed that because the company was domestic, it had a better grasp and understanding of the realities and local politics in the province. The domestic concessionaire also had contracts in other public sector infrastructure (construction, electricity, hotels, petroleum), which played a major role in its interest to keep its relationship with the provincial government in good standings. Alison Post argues that the concession lasted as long as it did because of its domestic ties and interest in the provincial economy. Tariffs increased rather slowly due to the economics in the country at the time but the concessionaire was willing to compromise. The relationship between the provincial government and concessionaire was

amicable and the contract was discussed and renegotiated on a yearly basis. During its life time, the water and service quality did improve. Studies conducted on the concession before its cancelation rate it as a positive experience, for both the consumers and authorities, even if the concessionaire was operating at a loss. Although a number of compromises were made during its lifetime, the concession was eventually rescinded due to non-compliance in wastewater discharge, for which the regulatory agency initiated penal proceedings (Clarke, Kosec, and Wallsten 2008; Medalla 2009; Post 2014; Saltiel and Maywah 2007).

Bolivia La Paz El Alto

The La Paz-El Alto contract was the first major concessions contract in Bolivia. This concession was a hopeful one and was awarded in 1997 for a 30-year duration to Aguas Iluminani, a subsidiary of Suez. It was one of the first pro-poor concession models and aimed at increasing the number of connections, while taking some of the burden of the price off of the poorest people. It markedly improved the access to water supply and treatment, although it did not reach the number of connections for water and sewage stipulated in the contract. Problems of contractual compliance eventually led the concession to be terminated in 2005, and it officially ended in January 2007, after amicable negotiation (Campbell-Page 2002; Lobina and Hall 2007; Komives 1999).

Bolivia, Cochabamba

The Cochabamba water concession is the most iconic of the failures and was widely publicized worldwide and is known as the ‘water wars’. The concession was awarded to Aguas del Tunari, a subsidiary of Bechtel Corporation, in 1999 for a duration

of 40 years. Rates increased, and some consumers saw their bills multiplied by four. The regulatory body was ineffective and politically influenced by the national government. Furthermore, there were no subsidies funded by the government to help the poorest. Protests erupted and even turned violent, leaving a person dead. The quality and service were never improved, although the rates were going up. When riots broke out the government had no choice but to reduce tariffs and cancel the concession in 2000 (Campbell-Page 2002; Lobina and Hall 2007; Kapoor 2015).

Colombia, Cartagena

Aguas de Cartagena, was awarded a 26-year concession contract that started in 1995, in the municipality of Cartagena. The concession is on-going to this day and has improved the coverage of water supply and treatment. It has taken some steps to reach the most vulnerable and has a cross-subsidy system in place. It has also reduced water losses and installed meters (Giarracca and Del Pozo 2005; Lobina and Hall 2007; Nickson 2001; Plummer 2013). This case will be discussed in greater detail later.

Colombia, Barranquilla

In 1997, the municipality of Barranquilla granted a 20-year concession to Triple A, which is now an operator in a number of other municipalities in Colombia. The concession reduced the net water losses by repairing a number of leaks. By 2006, after almost 10 years of operation, service was regular and quality up to standards while coverage is almost universal (Lobina and Hall 2007; Sislen 2010).

Santiago, Chile

In 1999, the Aguas Andinas (previously *Empresa Metropolitana de Obras Sanitarias* (EMOS)) concession was granted in Santiago for an indefinite amount of time. The tariffs and rates are reviewed every 5 years by the regulatory body. The contract is considered ‘successful’ because it has increased service quality and has stayed on track with its investment agenda. Service is continuous and coverage close to universal. Bill collection is almost 100%. The company has enjoyed important profits and is now publicly traded through divestiture (Baer 2014; Dupres et al. 2002; Lobina and Hall 2007).

Chile, Valparaiso

Empresa Sanitaria de Valparaiso S.A (ESVAL) entered into a concession in 1999 for a 35-year period with Valparaiso. Water quality has improved in Valparaiso, because in Chile the quality monitoring is conducted by a third party. Bill collection is almost 100%, which use to be a little over 80%. Just like in Santiago, the private company was eventually publicly traded (Baer 2014; Marin 2009).

Mexico, Cancun

Proceded by a management contract with a subsidiary of Gruppo Mexicano Desarrollo, the 30-year concession was granted to Gruppo Mexicano Desarrollo in 1993, based on satisfactory previous experience. The majority of the concession is owned by this domestic construction company; 49% of the shares were bought by Azurix Cancun in 1999. The concession and its services are monitored rigorously with a “long list of performance indicators”. The concession has a hard time keeping up with the rapid urbanization and is relying on city subsidies for investments. The residential tariffs are reviewed every year and the commercial tariffs are reviewed on a monthly basis. Because

the concession is not exclusive, some commerce have found alternate water supply solution (Kauffman 2012; OECD 2013; *PR Newswire* 1999).

Mexico, Aguascalientes

In 1993, Aguascalientes Water Company S.A. CASA, a private operator leased by Vivendi, acquired the 20-year concession in Aguascalientes. The company was rescued by the public sector after the 1994 economic crash. The contract was renegotiated in 1996, extending the period of the concession to 30 years. Although the level of coverage is high, it was already significantly high before privatization. Problems persist with quality of service which is intermittent and unreliable, and pipes have problems as they distribute both air and water, for which the consumer has to pay, because of the meters. The concession is monitored on solely two indicators: financial and technical efficiency. Residential leakage has been repaired but more repairs need to be done on the delivering infrastructure itself (Castro 2016; OECD 2013).

3. Places Evaluated

Once these ten cases were selected, I analyzed each of these concessions against the factors that were identified in the literature review (part 2) in order to narrow them down to two cases that I look at in greater detail. The analysis led me to identify a new way to look at success by including new factors (and sub-factors) that are present in concessions but are not included in their assessment.

I conducted research for each of the ten concessions individually in order to complete the table. I populated my table with primary and secondary sources. When the data were not available, these spaces have been annotated with “n.a”. However, most of

the table was filled out, and it allowed me to conduct a preliminary analysis and identify which patterns – from a conflict resolution perspective focused on structural violence – emerged. Because of the size of the table, I cut it in six distinct tables for efficient presentation, and my analysis follows this cut; thus, each part of analysis in chapter IV follows the main heading. From the preliminary analysis of the ten cases in the first substantive chapter (Chapter IV), I chose two cases to study in greater detail; keeping in mind their standing (‘success’ or ‘failed’ in the usual way that these terms are used) as to develop and offer a more comprehensive definition of ‘success’ and what this definition entails. I finally decided to look in greater detail at the ‘failed’ Tucuman, Argentina case and the ‘successful’ Cartagena, Colombia case. The canceled Salta, Argentina case was of great interest to study because of the seemingly absence of structural violence. Unfortunately, there was a lack of resources available, which would have not allowed me to dig deeper.

In the second substantive chapter (Chapter V) I looked at which reforms in the aforementioned countries, province (for Tucuman) and municipality (for Cartagena) enabled the process of public utilities privatization. The various laws and reforms passed prior to privatization, and to enable privatization, dictate a lot of the factors that influence the functioning of privatization, such as the framework of the regulatory body or the composition of the regulatory body itself. From these reforms and influences, I was able to establish their effects on civil society’s integration, participation and consultation in the privatization process.

In the third substantive chapter (Chapter VI), I looked at the remaining structural violence factors for both of the cases. I looked at the service area of each of the concessions, the consideration (or not) of the human right to water, the subsidy schemes in place, whether the improvements were Pareto and the environmental aspect of each. The analyses was conducted from a conflict resolution lens, which helped me identify the factors and sub-factors that play a role in structural violence and/or are signs of social injustice. I tried to not be bias and acknowledged the efforts that were made to remediate some of the structural injustices in the concessions, particularly in Cartagena. For the case of Tucuman, my findings were more limited, because the early termination of the contract did not let all of these factors transpire.

IV. EMERGING PATTERNS AND STRUCTURAL VIOLENCE

As presented in the literature review above, a number of academics have evaluated the performance of water privatization initiatives based on different factors. The World Bank broadly examines the ‘success’ of such initiatives based on 1) efficiency : net water losses reduction, cost recovery and bill collection efficiency; and service quality: coverage, quantity and continuity of supply (World Bank 2014) or 2) performance, which is measured by access, quality, operational efficiency and impact of tariffs (Marin 2009). Access is similar to coverage and means that portion of people who did not have access to the supply network before is diminished.

In order to understand and define ‘success’ in the broadest way possible, I have chosen to include all the identified factors – whether identified by individual academics or by development banks – in a table, where I can see patterns emerge and have a preliminary different perspective on ‘success’.

The locations on the first column were chosen based on the criteria mentioned in the Methodology section: Spanish-speaking countries where water privatization initiatives were implemented in the 1990s. Additionally, two cases per country were chosen, in order to identify the potential differences and similarities when implemented within the same context. All ten chosen cases are presented in Table 2.

I chose to include the case of Chile because it has been praised as the ‘poster child’ of privatization. Chile has been so ‘successful’ in its undertaking of privatization through the concession model that it was divested, publicly traded. Authors consider the

Chilean case a concession even though it has important differences with the typical concession, such as the indefinite length of time of the contract (OECD 2009; Dupres et al. 2002; Gleick et al. 2002; Baer 2014).

Table 2. Location and characteristics of chosen concessions

Location		Duration		Concessionaire	World Bank Classification
Argentina	Tucuman	95-97	early termination	Vivendi, aguas del Aconquija	failure
	Salta	98-05	terminated	Aguas de Salta (local)	mixed
Bolivia	La Paz- El Alto	97-06	terminated	Aguas Illumani	good performance
	Cochabamba	99-00	early termination	Aguas del Tunari	failure
Colombia	Cartagena	95	on-going	ACUCAR	success
	Baranquilla	97	on-going	Triple A, Aguas de Barcelona	success
Chile	Santiago	99	on-going	guas Andinas (EMOS previous name)	success
	Valparaiso	99	on-going	ESVAL	success
Mexico	Cancun	93	on-going	Grupo Mexicano de Desarrollo (local)	success
	AguasCalientes	94	on-going	Vivendi	success

In the following sections, the top row of each table represents the factors evaluates for each location in the first column from the left.

1. Institutional Capability

a. Description

The first set of factors (in Table 3), under *Institutional Capability*, refer to the government's capacity vis-a-vis the concessionaire. In the first column, 'negotiator' indicates the government's negotiating power, correlated with the number of bidders: a *no* indicates that there was only one bid and *yes* indicates there was more than one bid. The number of bidders impacts the governments negotiating power and leverage; if there is only one bidder the government is left without leverage. The columns under regulatory

agency are a range of qualities and responsibilities that a regulatory agency must have or perform. As discussed in the literature review above, it is these qualities that have been linked to the ‘success’ of an initiative: the regulatory agency must be strong, insulated from political power, have monitoring guidelines/indicator established, and be credible and transparent. The credibility and transparency aspect of the regulatory body is particularly important, as it is a reflection of citizen trust. For example, a credible regulatory agency will sanction the concessionaire when it is not respecting its contractual obligations, which lets the citizen know that the regulatory agency is doing its job and instils trust.

Table 3. Institutional Capability per concession

Location		Institutional Capability				
		Negotiator	Regulatory Agency			
			Capacity	Insulated	Monitoring	Transparent and credible
Argentina	Tucuman	no	weak	no	to be desired	no
	Salta	yes	strong	yes	yes	yes
Bolivia	La Paz- El Alto	no	Strong	yes	yes	yes
	Cochabamba	no	Weak	No	yes	no
Colombia	Cartagena	no	medium	mostly	yes	yes
	Baranquilla	no	medium	yes	yes	yes
Chile	Santiago	yes	Strong	mostly	yes	yes
	Valparaiso	yes	Strong	mostly	yes	yes
Mexico	Cancun	n.a	medium	no	yes	no
	AguasCalientes	no	weak	no	to be desired	no

b. Emerging Patterns

Although a large number of organizations and academics advocate for the regulatory agency to be politically insulated, this has no impact on the outcome of

privatization. For example, the Mexican regulatory agencies are not insulated and yet the initiatives are still ongoing.

In the case of the four terminated concessions (Tucuman and Salta, Argentina; La Paz-El Alto and Cochabamba, Bolivia), we can observe that the short-lived ones had only one sole bidder. Salta did have more than one bidder and the bid for La Paz-El Alto was competitive enough to have a strong bid by Aguas Iluminani, as a second bidder failed to bid at the last minute (Franceys and Gerlach 2012). Bolivian law requires at least two bidders which would make both of these processes was illegal (Castro 2007). This means that the canceled concessions of La Paz-El Alto and Cochabamba were awarded illegally because they each only had only one bidder. Knowing this, the escalation of the Cochabamba protest could have possibly been prevented if the concession had been awarded legally: more than one bidder would have given the Bolivian government more negotiating power and the tariffs would probably not have been raised as much as they were.

However the one bidder argument is not valid for the ongoing cases, although it should be noted that the bidding process was very short in Colombia and therefore, we can assume that not a lot of firms had to time to prepare their bid (Prasad 2008). In Aguascalientes, Mexico, the concession was awarded without competitive bidding, but this is due to the fact that it had previous experienced with a management contract with the same firm. Overall, it seems that the number of bidders does not impact the ‘success’ of a concession but it does affect its ‘failure’.

The regulatory agency can be either national or municipal, which can explain the differences in capacity and political insulation within and between countries. Depending on the national or municipal framework, there may be more than one regulatory agency in place. For example, in Chile there is only one national regulatory agency, whereas in Colombia there are two main national regulatory agencies, but monitoring and enforcement of concessions are conducted by the municipality (OECD 2013). Thus, when a regulatory body is municipal or provincial, the capacity and political insulation of the regulatory bodies will vary across a county. Accordingly, when a regulatory body is housed under a national ministry, its capacity and political insulation will be the same throughout the country.

2. Economic

a. Description

The columns that are presented under *the Economic* overhead (in Table 4 below) are mostly decided within the contract; the ‘Layoffs’ column is not always, but usually is a side effect of privatization and a measurement of ‘success’ by the World Bank as operational efficiency, which it calculates as the ratio of workers per thousand connections (Marin 2009). Layoffs are an economic measure of efficiency, the lower the ratio of workers per thousand connections, the less spending and in turn the greater the window for profits.

Table 4. Economic factors per concession

Location		Economic			
		Exclusivity	Gradual Pricing and/or tariff	Contract renegotiation	Layoffs
Argentina	Tucuman	yes	no	yes, rescinded	70%
	Salta	n.a	yes	yes	22%
Bolivia	La Paz- El Alto	yes	yes	yes	gradual
	Cochabamba	yes	no	failed	non-negligible
Colombia	Cartagena	no clause	yes	yes	65%
	Baranquilla	no	yes	yes	25%
Chile	Santiago	initially	yes	yes	24%
	Valparaiso	yes	yes	yes	48%
Mexico	Cancun	no	yes	yes	n.a
	AguasCalientes	yes	yes	yes	some

b. Emerging Patterns

The water privatization sector is a monopoly sector and therefore almost automatically prevents viable competition. In some cases the exclusivity clause is written out in the contract, but most often, exclusivity is simply the result of economic regulation. This is the case for most of the ‘successful’ cases where regulatory bodies that monitor but also regulate (in the economic sense) do not leave much space for financially sustainable competition. However, in Cancun, because of the absence of an exclusivity clause, some hotels have constructed their own desalinization plant (Kauffman 2012).

In Cartagena, there is no exclusivity clause and illegal vendors have been tolerated. In order to serve the unserved areas at first, water tankers were provided combined with other informal water providers. It is also important to note that Cartagena is also the only place where tariffs fell (Marin 2009). This could be either because of the cost recovery efficiency of the model but it might also reflect a lack of long-term

planning in taking precautions for climate change. Cartagena is studied in more depth in the following chapters and I find that a lack of long term planning is the likely answer.

In the case of Santiago – where an exclusivity clause was provided for a specific area of Santiago, *Empresa Metropolitana de Obras Sanitarias* (EMOS), now Aguas Andinas, had to compete against other water utility company in order to supply the rest of Santiago. This is one of the rare cases where competition is still ongoing, which can foster a will/incentive to best serve the current contracts in order to gain others.

Tariff increases are bound to happen in privatization cases because the previous public managed utility was serving at a loss and privatization aims at modifying that. Tariffs are set from a cost recovery perspective and are applicable to everyone uniformly, rates are added to tariffs and vary depending on the volume and social class of the customer. Tariff and rate increases that were not gradual are traits of the shortest-lived concessions, Cochabamba and Tucuman. Interestingly, none of the financial plans of the Cochabamba concession are accessible to the public because of a confidentiality clause (Castro 2008), underlining an obvious lack of information and transparency towards the public. The non-disclosure of the financial plans was most likely an attempt to hide the planned tariff hikes, which would have sparked protest immediately.

As is the case for Salta (in Argentina) and Aguascalientes (in Mexico), tariffs that are kept down for politically-influenced regulatory agencies have resulted in the concessionaire operating at a loss. During the Argentinian economic crisis of 2001, an economic emergency law that was already in place prompted the renegotiation of the tariffs. During that time, Salta agreed to operate at a loss because of its domestic

activities in other sectors, and other concessionaires present at the time in Argentina even sued the government for freezing the tariffs (Giupponi and Paz 2015).

During the Mexican economic crisis of 1995, the tariffs had to be adjusted and the Mexican national banks helped pay the debt of the concessionaire of an undisclosed amount (OECD 2013); Aguascalientes is still not meeting cost recovery (Kauffman 2012).

Overall, gradual pricing is a factor in the definition of ‘success’ as can be seen in two of the ‘failed’ cases, where increase in tariff and rates were abrupt. The exclusivity clause is not a condition to ‘success’ even though due to the monopoly of the sector competition is often times not financially viable.

3. Human Rights

a. Description

In Table 5, under the Human Rights heading, the first column refers to whether a human right to water is clearly stipulated in the country’s constitution. For instance, a right to a healthy environment – from which a right to water is sometimes derived in court – does not qualify as a right to water in a constitution. The second column, ‘guaranteed access’ looks at whether the concessionaire can decide to cut the service in case of non-payments. This can be stipulated in the contract, especially when the right to water is a constitutional right and the concessionaire, in order to remain financially stable, must cut off the service. The third factor, ‘quality standard’, assesses whether the standards in place are appropriate, these can be reflected in health measurements, such as

infant mortality rates. The last column is whether any protection can be identified for vulnerable populations; these can range from court rulings to specific laws and subsidies.

Table 5. Human Rights in the concessions

Location		Human Rights			
		Legal Right to water	Guaranteed access	Quality Standard	Vulnerable protection
Argentina	Tucuman	no	no	low	yes
	Salta	no	yes	flexible	yes
Bolivia	La Paz- El Alto	yes	no	good	no
	Cochabamba	yes	yes	to be desired	no
Colombia	Cartagena	no	no	good	yes
	Baranquilla	no	no	good	yes
Chile	Santiago	no	no	strong	ye
	Valparaiso	no	no	strong	yes
Mexico	Cancun	yes	no	good	n.a
	AguasCalientes	yes	no	to be desired	n.a

b. Emerging Patterns

We immediately notice that for all the ‘successful’ cases, the concessionaire can only cut water access in the case of a non-payment. It is not surprising in Colombia and Chile as water access is not a constitutional right. However, it is a constitutional right in Mexico and yet the access is not guaranteed; this is because although the right to water is a federal law, the state laws vary and in the case of the Aguascalientes State and the Quintana Roo State (Cancun) access is not guaranteed. Interestingly enough, in the case of the terminated concessions, the opposite is true, except in La Paz-El Alto where water supply could be cut after two months of non-payment (Komives 1999). In Argentina, the

concessionaire was not allowed to cut the water supply (Marin 2009) and although this is not in the Argentinian constitution, the Argentinian court cases have often ruled the disconnection of water for non-payment a constitutional violation of the right to a healthy environment.

Court rulings in Colombia have resulted in a pro-infant principal, where the “right to water of children should be especially protected” (Giupponi and Paz 2015). Since then, the Court established, specifically, that the right to water supply could be protected “in those cases clearly affecting rights and fundamental constitutional principles such as those relating to the human dignity, life and rights of disable people” (Giupponi and Paz 2015). Accordingly, courts in Colombia have guaranteed the access to water to the most vulnerable people.

Quality standards are one of the World Bank’s performance indicators and are therefore always present in their evaluation; it is their degree of flexibility that differs the most between the various concessions. In Tucuman – the shortest-lived concession – a manganese contamination occurred which, combined with tariff hikes, announced the beginning of the end with a non-payment campaign (Post 2014). The non-payment campaign in Tucuman started in the remote rural areas of the province as soon as the concession was implemented. The campaign peaked in January 1996, when in the capital city of San Miguel de Tucuman, the manganese contamination led the residents of the capital to join the protest, resulting in a stark 86% of the population to participate in the non-payment campaign. The concession was rescinded a few months later.

In Salta, ‘flexible’ indicates that the quality standards were flexible when it was reaching more remote areas, as it isn’t financially viable to have the highest quality standard in these isolated areas. Therefore the regulator was flexible when it came to evaluating the quality standards (e.g. water pressure) (Saltiel and Maywah 2007). This flexibility tends to be a trait of pro-poor concessions and was also present in La Paz-El Alto where the regulator approved that Aguas Iluminani build a condominial system, which is of lower quality; however because the regulator was strong and tested a lot of indicators, I attributed the mention *good* for the quality standard factor (Komives 1999).

The reason Chile has such a strong quality standard is because the regulatory body only accepts the analyses performed by certified laboratories (OECD 2013). Independent party assessments ensure the legitimacy of the analyses and guarantees the impartiality of the results.

4. Society

a. Description

The Societal overhead includes: the presence or absence of ‘public participation/consultation’. This can sometimes be outlined in the contract or be included as a form of regulation, but whether or not they are reactively happening or generate enough public attention is a different story. The opposite can happen — there can be public participation/consultation without it being stipulated in the contract. In general, public participation can help the citizen understand the condition of the infrastructure, get a sense of the steps that need to be taken to better it and in turn comprehend the necessity

of rate increases. Public consultation can allow the citizens to participate in the formulation of solutions.

Subsidies are an indication that the poorest of the population are helped out, they can be financed by the government or by the concessionaire, this is usually decided in the contract. In Chile the governments pays for it, in Cochabamba it was also decided the government would pay for it, but it had no funds to do so.

The issue of whether illegal or unofficial settlement should be connected to the infrastructure network could be stipulated in the contract. It isn't always clear whether priority is given to the number of connections or to universal coverage (which would include the connection of illegal settlements to the network. If universal coverage is the priority, the governments have to either legalizes those settlements or waive the land title provision condition to be connected, in unofficial settlement cases

Pareto Improvements, as explained in the literature review above, means that no entity (such as, the government, the firm or the society) is losing in the process, meaning they are either better off or not worst off at least.

Table 6. Societal implications per concession

Location		Society			
		Public participation /consultation	Subsidies	Reach Illegal Settlements	Pareto Improvements
Argentina	Tucuman	no	never implemented	n.a	no
	Salta	yes	yes	yes	no
Bolivia	La Paz- El Alto	optional	yes	yes	no
	Cochabamba	optional	no funds	n.a	no
Colombia	Cartagena	yes	yes	yes	no
	Baranquilla	no	yes	yes	yes
Chile	Santiago	no	yes	yes	yes
	Valparaiso	no	yes	yes	yes
Mexico	Cancun	n.a	yes	yes	no
	Aguascalientes	no	yes	yes	no

b. Emerging Patterns

The two biggest emerging and surprising patterns are that there is a lack of effective public participation and consultation in almost all the initiatives and that the aim of coverage seems to trump the legality of settlements. This was the case in La Paz-El Alto, where a clause in the contract seems to prioritize expansion over legality of settlements: “all buildings” in the service area should be connected.

Subsidy schemes are present in all, except one, of the concessions; however, they differ in type. Most of them are cross-subsidy schemes, which tend to have more people that should receive subsidies and do not receive them. To the contrary, Chile did not adopt this subsidy model but a model that is based on socioeconomic characteristics, where more people receive subsidies than they should (Sislen 2010). In Chile the improvements are Pareto considering all those who should receive subsidies in the

population do and both the firm and the state (who has an equity in the concession) have been making profits. Additionally, subsidies have been set at a minimum requirement of 20m³ per month in Colombia and Chile - both above the minimum standard set by the World Health Organization.

In the case where the government, the concessionaire or the citizens are worst off after the implementation of an initiative, then the improvements are not Pareto. As we can notice, the four terminated contracts were in this situation, whether it was the result of citizens not being able to afford their water or the concessionaire operating at a loss.

As we see, in Mexico the improvements are not Pareto, and this is due to the fact that the Mexican banks had to relieve the concessionaire of their debt when the recession hit; therefore the national banks lost some of its fund, making it worse off.

5. Environment

a. Description

The last heading is the *Environmental* side of the water concessions agreement (presented in Table 6), ‘Volume-conscious pricing’ means that the price structure is based on water volume, by which prices increase when the volume reaches a certain threshold. Additionally, metered bills can also serve as a mechanism to promote water conservation, rather than estimated unmetered bills. ‘Water Loss Reduction’ is a measure of estimated leakage from the pipes before and after privatization; it is measured by the amount of water distributed and paid for in the past and that difference with the present. Repairing leaks decreases the unbilled water volume lost, allowing the company to make more profits and at time same time promoting conservation. ‘Precautions for Climate

Change’ is an indicator that assesses whether there is consumer awareness for water conservation or precautions in place for eventual water scarcity scenarios.

Table 7. Environmental aspect of concessions

Location		Environment			
		Conservation			Precautions for Climate Change
		Volume Conscious Pricing	Meters	Water Losses Reduction	
Argentina	Tucuman	yes	No	modest	no
	Salta	Yes	yes	Not significant	yes
Bolivia	La Paz- El Alto	yes	yes	marginal	n.a
	Cochabamba	yes	mostly no	n.a	n.a
Colombia	Cartagena	yes	micro-meterin	yes	no
	Baranquilla	n.a	yes	modest	yes
Chile	Santiago	yes	micro-meterin	increased	yes
	Valparaiso	yes	yes	increased	n.a
Mexico	Cancun	yes	yes	n.a	no
	Aguascalientes	n.a	yes	modest	no

b. Emerging Pattern

As far as the environmental side of privatization is concerned, there do not seem to be trends that are indicative of success or ‘failure’ of a particular concession, except that the shortest-lived concessions did not have metered bills.

Interestingly, Chile, the poster child of privatization, has not reduced its net water losses. It had not done so because it is not financially sustainable to do so, this is called Optimal Level of leakage when “investing in leak reduction activities might just not be the most economical option” (Marin 2009).

Micro-metering, which measures volume to the micro liter (μL), appears to encourage water conservation in consumers from a financial standpoint, however coupled with the fact that tariffs have gone down in Cartagena, this gives mixed signals as to whether conservation is a priority. On the other hand, in Barranquilla, Colombia, an Environmental Management Plan is submitted by the operator every 5 years (Sislen 2010). In Santiago (Chile), environmental friendly steps have also been taken, by returning cleaned water to their streams or recycling it for irrigation (Dupres et al. 2002).

Conclusion

Looking at the classification of these concessions, the most surprising pattern is the lack of public participation/consultation in most of these concessions, including the ‘successful’ ones. From a structural violence point of view, this finding is critical, the absence of a channel through which citizens can air their grievances increases the probability that issues occur, such as protest or even violence. Other factors in the Society heading will also impact the intensity of structural violence. The remaining factors which play a role in structural violence include the ‘layoffs’ under the ‘economic’ overhead, the entire ‘human right’ category, and the ‘environmental’ measures in place. As Galtung demonstrates in his essay on ‘Violence, Peace, and Peace Research’, structural issues can lead to more consequential episodes of violence, which is why it is primordial to identify and address these injustices.

From the finding above, I have chosen to look at Tucuman in Argentina and Cartagena in Colombia. These two have some similarities in terms social injustices but also differences, when looking at subsidies and the supply of water to illegal settlements.

In terms of human rights, they are also similar except for the ‘quality standard’ overhead.

Furthermore, both of these concessions were implemented in the same year.

V. GENESIS OF PRIVATIZATION AND ITS IMPACT ON CIVIL SOCIETY

Privatization in most countries occurred as the result of new legislations passed which open the doors for public utilities to be privatized; Colombia and Argentina are no exception. I am not interested in the financing or the technicalities of the privatization but rather the genesis of privatization, its implementation and its effects on public participation, societal repercussions, human rights and the environment. By no means is this a critique of what ‘success’ is, it is only a different perspective on the definition of ‘success’. I look at ‘success’ from a social structural violence point of view and forgo the economic and technical factors that are used to define ‘success’ by the World Bank in order to unveil the hidden injustices.

It is important to look at how privatization came about in order to assess whether structural violence was present at the beginning or if it developed later on. Therefore, this chapter will look at the processes that were put in place for privatization to be legal and consequently enter the country, looking at these from a public participation perspective. I find that ‘success’ in the status quo fundamentally lacks public participation and consultation.

The two chosen cases from among those analyzed in the preceding chapter (Chapter IV) are Cartagena de Indias in Colombia and Tucuman in Argentina. Cartagena is a municipality of 895,400 inhabitants located at the north of country (UNdata 2005). Tucuman is a province in Argentina, the entire province was privatized but for scale of

comparison, we will concentrate on the capital of Tucuman, San Miguel of Tucuman with a population of almost 700 000 inhabitants (Crenzel 2004). Even though the concession was for the entire province, the key events that shifted the stability of the concession culminated in San Miguel de Tucuman.

1. At The National Level

In 1986, a state reform in Colombia restructured the office of mayors to make the municipalities more democratic. Previous to this, the political figures were individually appointed. The president selected the governors, and the governors chose the mayors. This form of government led to strong political favoritism and consequently an uneven distribution of financial expenditures within the country (Zhou and Smith 2009). For example, in 1972, the three largest municipalities received 72% of the financial resources (Nickson 2001). The State reform aimed therefore at decentralizing the political process by putting in place the mechanism for a direct citizen democratic election of the mayors along with the municipal council.

A few years later, in 1991, a constitutional reform put the efficiency of the public services at the forefront of the agenda and provided more opportunities for citizen participation (Barrera-Osorio, Olivera, and Ospino 2009; Mayaux 2012; Nickson 2001; Zhou and Smith 2009). However, it was Law 142 of 1994 that really changed the game for the efficient provision of public services. The new legislation introduced a market oriented approach to the provision of these services and opened the door to private sector participation in these services (Nickson 2001). Interestingly, the World Bank provided technical assistance for the drafting of this law (Mayaux 2009). A few articles of Law

142 are worth noting in respect to the water and sanitation sector, namely: articles 5, 62, 69 and 76.

Article 5 stipulates that the municipalities are responsible for the creation of their individual water and sanitation utility company (Mayaux 2012), article 62 stipulates the municipality must also create a citizen watchdog committee (*Comité de Desarrollo y Control Social*) to monitor companies providing a public service, therefore including the water and sanitation utility company (Nickson 2001). Articles 69 and 76 concern the regulatory framework by creating two regulatory bodies: the *Comisiosn de Regulacion de Agua Potable y Saanemiento Basico* (CRA) and the *Superintendencia de Servicio Publicos Domicilarios* (SSP), respectively (Memon 2003; Sislen 2010). The CRA is housed under the Ministry of Economic Development and is a mostly autonomous body in charge of setting the quality standards and tariff revisions. The SSP is responsible for ensuring that the decisions of the CRA are applied at the municipal level; it also hears customer complaints and examines the corporate finances of the utility companies. The SSP can fine utility services company if there is any breech to agreed norms (Mayaux 2012; Nickson 2001).

The decentralization of the public services, which were now the responsibility of the municipality, combined with direct election of the mayor by the citizen of the municipality and the regulatory frameworks in place that ensure compatible and homogenous goals at the local and national level, allowed for the public services of Cartagena to be improved on, starting in 1986.

Consequently, the public complaints about the water services in Cartagena were heard by the mayor who had to respond to “the problems of poor water service, low collection rates, and inefficient management” (Zhou and Smith 2009). The water and sanitation private sector participation in Cartagena is viewed as a ‘success’ story by the World Bank (Lobina and Hall 2007; Marin 2009).

In contrast to the Cartagena concession, the Tucuman’s private sector involvement in the water sector is seen as a ‘failure’ with an early termination status (Castro 2016; Crenzel 2004; Marin 2009; Post 2014).

After a series of military coups and dictatorships in Argentina, which started in 1955 with a coup that removed the president Juan Domingo Peron and lasted until 1983. For a brief period, Peron was able to come back to power in 1973 until his death in 1974, when his wife Eva Peron took over for another two years until a subsequent period of coup and dictatorship lasted until 1983. Raul Alfonsin was democratically elected in 1983. However, the country was so broken down and in debt with high inflation rates, that Alfonsin was not able to guide Argentina out of its economic crisis. In 1989, Argentina saw the return of the Peronist party (*Peron’s Partido Justicialista*, legacy of Juan Domingo Peron) with the election of President Carlos Menem (Giarracca and Del Pozo 2005; Loftus and McDonald 2001).

As soon as Menem took power, he declared a state of economic emergency that allowed him to take decisions by decree by passing the council. He also passed a National Administrative Law on the subject of the provision of public services which authorized the “partial or total privatization or liquidation of companies, corporations,

establishments or productive properties totally or partially owned by the state, including as a prior requirement that they should have been declared subject to privatization by the Executive Branch, approval for which should in all cases be provided by a Congressional Law.” (Loftus and McDonald 2001). Menem convinced the masses that privatization was the only possible solution to the recession and inflation. Additional decrees (2074, 1449 and 2408) stated that the privatization would take the form of a concession. Because strikes in the country were attempting to block these reforms passed by decree, and in order to appease the labor leaders, who were affiliated with the political elite, Menem and his government consulted with them about the decrees and reforms, although “it seems to have been little more than a means of guaranteeing their co-optation” (Loftus and McDonald 2001). Even though the union leaders, linked to the political Peronist elite, had the right to veto decisions, they never used it and all resolutions were taken by consensus, even when it involved the loss of jobs of many worker. (Loftus and McDonald 2001). Another tool that appeased the various labor unions, which looks like buying votes (once again), was the *Program de Propiedad Participada* (PPP). The PPP stipulated that the employees would have a 10% share in the privatization process (Crenzel 2004; Loftus and McDonald 2001). In other words, the labor leaders had a seat at the table about the privatization discussion and were helping decide which employees would be the ones to keep their jobs and have an equity in the 10% of the shares. Most importantly, because of the state of economic emergency, public consultation or participation was null, except for the aforementioned unions leaders, who were not truly representing the civil worker society but serving their own interest.

2. At The Local Level

Meanwhile in Tucuman, the Peronist party convinced Ramon “Palito” Ortega, a music star, to return to his city and province of origin and run for governor. He was elected in 1991. When he came into power, *Direccion Provincial de Obras Sanitarias* (DiPOS) had been providing the water to the Tucuman province since 1980. DiPOS was running at a loss, and infrastructure was run down. Consequently, residents had themselves “financed most of the existing water and sewerage infrastructure” (Giarracca and Del Pozo 2005). Thus, when in 1993, provincial Law 6445 stipulated that DiPOS could be privatized, the residents expect to be reimbursed for the work they had financed themselves (Giarracca and Del Pozo 2005). The law under the Ortega administration also called for tenders for the privatization process. Article 8 of the law set up the creation of *Ente Reguladore del Servicio de Agua y Coacas de Tucuman* (ERSACT, initially named *Aguas de Tucuman*) as the sole, absolute and independent regulatory agency (Crenzel 2004; Le Dressay 2005). The regulatory framework of ERSACT was laid out in Law 6529. ERSACT would supervise compliance with the regulatory framework and contract, advise the executive power of results, enforce the law, regulate and control, test quality and also work with provincial Health authorities (*Provincial de Salud*), to prevent and control superficial underground water, respond to claims concerning the service or the billing issues the users may have. Additionally article 58 and 59 were on the subject of sanctions in case of non-compliance, the regulatory agency could penalize with notification and the Executive municipal could fine or rescind the contract with the privatization firm (Crenzel 2004). Article 13 of Law 6529 stipulated the composition of the management council of ERSACT, whose member were appointed by the “executive

with legislative approval, rendering it subject to relatively close political control” (Morgan 2011). The regulatory body ERSACT would be funded by a charge on the consumers’ bills. Once again, there was no citizen involvement in the configuration and works of the regulatory body that they were financing themselves. In 1994, after Law 6445 and Law 6529 were passed, Tucuman was ready to invite privatization firms to take over the activities of DiPOS (Crenzel 2004; Le Dressay 2005). It should be noted that while the rest of Argentina was convinced by Menem’s discourse on privatization, in Tucuman, strong feelings of nostalgia about the past leadership of General Domingo Peron were resurfacing. The province that had historically supported the General and his nationalist party of Peron, was now minimizing the pain and suffering, and emphasizing the gained social benefits under his rule (Giarracca and Del Pozo 2005).

At the same time, in 1994, the municipal council in Cartagena approved the creation of Aguas de Cartagena (AGUACAR), a water and sanitation company that combined the municipality and a private sector concessionaire, a mixed enterprise. Thereupon, and shortly before the passage of Law 142, the mayor of Cartagena, Gabriel Garcia, who had been looking for a solution to the water and sanitation issue, launched the bidding process for the concession contract which lasted from May to December of 1994. Although three companies bought the bidding document, only one submitted a bid, this could be due to the short time frame or the fear of the guerrillas in the country. The reason the timeframe for bidding was so short was caused by the fact that Gabriel Garcia was due to leave office and his successor was of the opposite political platform and opposed to privatization (Sislen 2010). On the 30th of December, Garcia’s last day in

office, Aguas de Barcelona (the sole bidder) partnered with the municipality to complete the creation of AGUACAR and signed a 26-year concession contract with the municipality (Barrera-Osorio, Olivera, and Ospino 2009; Lobina and Hall 2007; Mayaux 2012; Memon 2003; Zhou and Smith 2009).

At the time of the signing, Aguas de Barcelona shares were of 90% and the remaining 10% were municipal (Lobina and Hall 2007; Mayaux 2012; Sislen 2010). The venture was the first time that the public sector was not manipulated by short term political consideration when mayors used to approve “investment projects (including in the water sector) in parts of the city where votes were most needed to win the election” (Nickson 2001). This long-term project enabled the municipality to access financial loans again, when it had lost its “credibility with the World Bank because of the absence of serious long-term planning” (Mayaux 2009). When Guillermo Paniza, the new mayor, took office in January 1995, he had the intention of cancelling the freshly signed contract and bring back the water sector under municipal management; however, a meeting with the World Bank project manager made it clear that the financial funds would not be available to Cartagena unless the contract was maintained. In the end, Paniza opted to renegotiate the contract with AGUABAR (Nickson 2001).

In Tucuman, once privatization was made legally possible and calls for tender had been made, the bidding process started in 1994. Initially, as much as five company had taken an interest in the concession project, partly due to the fact that the provincial government had raised the tariffs before the bidding process, to make the project more attractive. Ortega’s administration had made clear that they would award the concession

based on the largest financial investment proposed and the lowest multiplier of the existing rate (Crenzel 2004; Giarracca and Del Pozo 2005; Le Dressay 2005; Post 2014). Finally, Aguas del Aconquija a subsidiary of Compagnie General des Eaux (nowadays Veolia water) was the sole bidder; was granted the license in December 1994 and took over the operations the following year. Once the concession was granted, social discontent immediately started to protrude. General Bussi, who got elected in 1995, was so on promises that he would renegotiate the contract (Crenzel 2004; Le Dressay 2005; Post 2014).

3. Public Participation

Interestingly, the Colombian and Argentinian concessions were awarded at relatively the same time and both political figures (Garcia and Ortega) were at the end of their mandate. In both cases it was a ‘race against time’ to get these concessions awarded and contracts signed. However, they significantly differed in how they came about: in Colombia, there was a goal of greater public participation in each of the laws and reforms passed; in Argentina, there was a total absence of public consultation or participation. Below is discussed in greater detail, the impact of the inclusion and exclusion of civil society in the privatization of their water utility service.

a. Public Participation In Cartagena

Cartagena is noted as a ‘success’ story because it has markedly improved in service quality and operational efficiency, indices that the World Bank considers when rating the performance of a concession. By 2005, 99% of the population had access to water and 95% was connected to sewage from 68% and 56% in 1994; additionally the

operational efficiency ratio was of 4 employees per 1000 connections. Moreover, from an environmental standpoint, the water losses were reduced from 60% to 40%, which at first look looks like a modest reduction but once the expansion of the network is taken into account, the reduction in leakage was actually halved (Marin 2009). The story can also be considered a ‘success’ when juxtaposed to the National Water and Sanitation Plan’s coverage and sewage goals, ratified in 1995. The plan sought to average 90% coverage and 70% sewage by 2010 as well as improve water quality, reduce leakage and take environmentally conscious measures for the entire country. (Nickson 2001).

Taking a deeper look at the Cartagena concession, from a broader perspective, there are signs that the ‘success’ of the concession comes with some structural violence. Signs of inequity or injustice appear when taking a deeper look into the public participation mechanisms (in this chapter), area to be served, human right, subsidies, Pareto improvements and the environment (in the subsequent chapter).

As mentioned earlier, article 62 of Law 142, the *Comité de Desarrollo y Control Social* (the watchdog citizen committee) that monitors basic public services seems to exist but is “moribund” (Nickson 2001), idle. The bureaucratic complexity of forming council compiled to the fact that most citizens do not know “their rights to form councils” produces an important barrier to public participation (Herrera and Post 2014). Other factors, such as lack of knowledge or promotion are barriers to civil society’s participation in overseeing the operations of the concessions (Sislen 2010). Moreover, even the constitutional reform of 1991 that aimed at implementing greater citizen

participation through a variety of mechanisms, such as referendums, seems to exist only on paper (Nickson 2001).

Even the national regulator SSP, set up by article 76, responsible for the supervisions of public services operations in the country is weak; it has only about 50 employees and there are over 1500 water operators in urban areas to be supervised, not including the electricity and telecommunication (Mayaux 2009). Essentially, the mechanisms appear in place on paper but are ineffective or nonexistent in reality.

b. Public Participation In Tucuman

The contract between the Aguas del Aconquija and the provincial government was negotiated behind closed doors (Le Dressay 2005). The lowest possible tariff rise was agreed to be 68%, except that an ‘infrastructure charge’ and a ‘regulatory fee’ were added to it, increasing a consumers bill even more. Moreover on June 20th of that same year, the rate were farther increased, totaling 106% of the original rate pre-privatization (Castro 2016; Crenzel 2004; Post 2014). Subsidies and layoffs were also discussed during the negotiations. Once again, even though this affected the civilian population, “there was an absence in all forms of civil society participation” (Crenzel 2004), user organizations were excluded from the regulatory structure (which they were financing) and now they were also excluded from the negotiations of the licensing contract. Union leaders with strong political ties were the only ones present in the negotiation and played a role in selecting those that would not be laid off and therefore qualified for the *Program de Propiedad Participada* (mentioned above), which would give them a 10% equity stake in the concessions shares (Crenzel 2004).

As soon as privatization was implemented in Tucuman, social protests started. At first, mostly because of the rate hike and the added taxes, but they intensified as soon as quality problems arose in the capital city. Laid off workers and women played an important part in the social protest of the concession (Crenzel 2004; Giarracca and Del Pozo 2005). The lay-offs did not happen as it had been planned and more than 60% of the force were laid off, as opposed to the 90% that were supposed to be kept or transferred to the private company and regulatory body (Crenzel 2004). The ones that were kept were transferred to the concessionaire but mostly to the regulatory body, and none were given new “training or preparation for their new roles of regulating rather than operating” (Morgan 2011). Moreover, the ones who were transferred were chosen mostly based on political connections, helped by the labor unions leaders who themselves were part of the political elite (Le Dressay 2005). Consequently, because of their lack of training, they did not do their jobs of hearing customers’ complaints about bills and quality. The regulatory authority ignored the population’s protest until they could not do so anymore, when the protest reached the capital.

When in January, 1996, a manganese contamination of the water supply, turning the water brown, in San Miguel de Tucuman protests reached their peak. First of all, the regulator could not ignore the complaints of the civil society but mostly this showed its lack of skills in relation to monitoring the quality of the water. As the protests and demonstrations intensified, a campaign of bill non-payment reached its peak, with 86% of the users not paying for their water bills (including provincial government employees). Aguas de Aconquija confirmed the manganese presence originating from the El Cadillal

dam reservoir, but said the water was potable. The brown water affected 60% of San Miguel de Tucuman for over a month. When the provincial Health authorities (*Provincial de Salud*), who work with ERSACT, produced an analysis that proved the contrary, the Bussi administration started to react, after months of civic protests, and replaced the board of directors of the regulatory agency (Giarracca and Del Pozo 2005; Post 2014). At that time, Bussi talked about rescinding the contract, and the regulatory agency finally took action and penalized Aguas del Aconquija; additionally asking for a bill reduction, justified by the poor quality of the water. However, the provincial government and ERSACT were at odds with the national executive government, who interfered in the situation and convinced Bussi and ERSACT to renegotiate the contract instead of cancelling it. Menem did not want to scare off potential financial flows to come into Argentina, and a cancellation would taint Argentina's profile. The regulator, which was formally autonomous, did not prove to be so, influenced by both the provincial and national government, the latter being influenced by the World Bank. The *Compagnie general des Eaux* filed a case with the International Center for Settlement of Investment Disputes, while in parallel, the contract was renegotiated with assistance from the World Bank and compiled a new rate scheme and quality standard. However, the resulting informal contract was rejected by Aguas del Aconquija. (Castro 2016; Coleman 2012; Crenzel 2004; Morgan 2011). Consequently, in August 1996, Bussi rescinded the contract. The concessionaire wanted to leave within 90 days, but the terms of the original contract stipulated an 18 months transition period.

In the end the concessionaire stayed for 10 months and was forbidden to cut off the water and lowered the rates by 20% (Calcagno, Mendiburo, and Novillo 2000; Crenzel 2004; Coleman 2012; Le Dressay 2005).

Perhaps, if privatization plans had not been passed by decrees and the public would have been able to provide some input and was also represented in the regulatory body, escalation might not have been so important. Citizen's issues with high bills could have been discussed and a creative solution could have been found, or simply sources of funding for subsidies could have been identify. Concerns about quality could have been hear, regulation could have been more rigorous and the brown water episode could have been prevented.

Even though public participation existed on paper in Colombia and was entirely absent in Argentina, both cases present a total ignorance of society's concerns. In Colombia the mechanism could have said to be 'in place on paper' but the lack of the civilians' knowledge of their rights prevents them from taking advantage of the mechanisms. In Argentina, the absence of these mechanism led in some way to their creation, through massive protest and campaign.

c. Corruption: Further Affecting Public Participation

Other than public participation, or possibly a simple side effect of lack thereof, is the presence of corruption that impedes even more on the potential public participation, consultation and transparency. As Nickson and Mayaux argue, even the 1986 Colombian state reform that aimed at eliminating political favoritism and clientelism, through decentralization, did not produce the desired results. The problem of clientelism based politics is still very much present; the only difference is that now, because of the direct

election of the mayor and council members, the buying of votes is more visible. For example, “the number of land invasions by homeless families increases at pre-election times, as a form of bargaining by the poor for material benefits in exchange for the offer of political support to elite contestants for municipal posts” (Mayaux 2009). Corruption is clearly still an issue, and has been reflected in the turn-over of mayors, which has made a number of them step down as a result of corruption scandals, between 1992 and 2008, eight mayors has succeeded each other (Mayaux 2009)

The dual role of the municipality in the AGUACAR concession and in its role as the local government that seeks direct election votes has been pointed to as problematic, due to a conflict of interest. Moreover, as a results of elections held every 3 years for the mayor and 4 years for the council, the management staff from the municipality in AGUACAR changes too often and lacks the minimal technical support in its negotiations and knowledge about what happens, “to all intents and purpose it is a ‘sleeping’ partner’.”(Nickson 2001; Mayaux 2012; Sislen 2010).

Corruption in Tucuman is just as visible as in Cartagena. As Castro describes, corruption of public officers and politicians in Tucuman was present from the start. Protests even denounced this, when “one of the most symbolic protests was the “Bottle demonstration” carried out by the users against the private company and the provincial authorities, which included piles of bottles placed in front of the government headquarters and a mock “legislative session” held in the central square representing scenes of the briberization”” (Castro 2016). In general, water bottles represent the private

concessionaire's water intake and symbolizes the depletion of the water bodies for revenues, facilitated by a weak regulation and government.

Conclusion

Even though privatization came about differently in Colombia and Argentina, there are more similarities than differences from the view point of civil society participation and corruption in the privatization of their water utility sector. In Colombia there was an effort, through the constitutional reform of 1991, to decentralize power and give more weight to the citizens in their municipality, which was ineffective with the continuing presence of political favoritism. Moreover, the moribund watchdog civil committee compounded with the lack of knowledge the civilians have about their rights makes their participation nonexistent. In Argentina, resulting from the economic state of emergency climate, participation or consultation was missing from the start. In both countries, political favoritism is still very much imbedded in the political processes. Essentially, structural violence is present in both: in Colombia, the mechanism for participation are present but idle; in Argentina, they are simply absent – both resulting in a lack of consideration of the society. Thus, from the structural violence perspective, 'success' is defined as a lack of public participation. The next chapter (Chapter VI) will look at the remaining factors considered when looking at structural violence in order to have a more complete and rounded definition of 'success' from this perspective.

VI. ADDITIONAL SIGNS OF STRUCTURAL VIOLENCE

As we have seen in the preceding chapter (Chapter V), signs of injustice which translate into structural violence are present in both the ‘successful’ case of Colombia and the ‘failed’ case of Argentina. This chapter will look into the other factors that are considered to affect structural violence by looking at signs of inequity or injustice. The service area defined in the contract in Cartagena, Colombia, will be looked at into greater depth. In Tucuman, the concession did not last long enough to look deeply into potential unserved area. The subsequent parts of this chapter will look at the concessions in terms of, human right, subsidies, Pareto improvements and the environment. Looking at all the aforementioned factors in both concessions, we can see that the structural violence was much stronger in Tucuman than in Cartagena; although the latter does leave some areas to be desired. In this chapter I find that ‘success’ entails inappropriate subsidies and insufficient efforts to connect illegal settlements, does not guarantee access to water and fails to make adequate conservation efforts that are not financially viable. These structural violence are part of the status quo of ‘success’ but as opposed to the preceding chapter (Chapter V), they are different and less pronounced. Public participation is therefore the most salient sign of structural violence.

1. Service Area

Even though, the coverage numbers in Cartagena, provided in the previous chapter (Chapter V) , by AGUACAR are impressive (99% of the population has access to water and 95% are connected to sewage), other studies show that a number of settlement are not reached (Lobina and Hall 2007; Lobina 2005; Memon 2003; Nickson 2001; Plummer 2013). Thus, the numbers provided by AGUACAR do not reflect the reality.

This is partly due to Law 388 of 1997 on the subject of the demarcation of the municipality, where a *Plan de Ordenamiento Territorial* (POT) demarcates the municipality's urban area and represents the geographical coordinates of a legally defined area that the concession must serve (Nickson 2001). As a result of this plan, some inequalities in service and coverage are not reflected in the coverage numbers provided by AGUACAR.

Two *comunas* (equivalent to districts in English) are negatively affected by the POT: the Nelson Mandela *comuna*, which is located outside of legally-defined urban area and the El Pozon *comuna*, which is within the POT. The Nelson Mandela *comuna* is “probably the poorest peri-urban settlement in the municipality” (Plummer 2013), by excluding the Nelson Mandela *comuna* from the legally defined service area, the municipality denies its responsibility to serve it. To get around this technical legal difficulty, the municipality has been providing water tankers and has tried to deliver water to collective points, to get around the technical legality that impedes on the provision of individual connections. A number of issues arise with this, the collective billing is unfair as it doesn't account for the difference in water consumption, for example commercial establishments in Nelson Mandela are driving up the water bill but are paying the same amount as individual residences. Additionally, some families do not want to pay their portion of the bill, which negatively impacts the others that are willing to pay, by increasing their burden. Other individuals resell the water, making a profit, and yet pay the same amount as those who do not. (Lobina 2005; Nickson 2001; Plummer 2013).

The issue that the El Pozon *comuna* faces is slightly different, since it is within the legally defined area; yet, only a portion of El Pozon's *barrios* (equivalent to neighborhoods in English) are recognized by the municipality to be within the *comuna*, leaving the other ones without service. It is estimated that they are 42 *barrios* and only 27 are recognized. As a result of this, the residents connect illegally to the network, affecting the quality (pressure) of the water received by all (the paying consumers and non-paying consumers). The same issue of water resell arises in the El Pozon *comuna*, where those not connected pay almost twice the price for water as those connected legally in the recognized *barrios* (Nickson 2001; Plummer 2013).

Lastly, although the supply of water tanker was provided by the Cartagena municipality to these "illegal" settlement (Marin 2009), it was found that their delivery of these services was intermittent and not reliable in both the Nelson Mandela and the El Pozon *comunas* (Nickson 2001; Plummer 2013).

In Tucuman, one of the aims of the concession was the expansion of the infrastructure to the poor settlement of the Greater San Miguel area. Almost none of the planned investment stipulated in the contract with Aguas de Aconquija was made, there was "almost zero compliance" with the investment forecast. Consequently, no efforts made to serve the most vulnerable and often illegal settlements. The segregated poor rural migrants are not integrated in the urban planning and "have a pattern of poor or null provision of basic utilities", not receiving water or sewage treatment, accentuated by their incapacity to afford these water services (Castro 2016).

2. Human Right to Water

In respect to human rights in Cartagena, AGUACAR is allowed to cut the water supply of non-paying consumers, but must notify them in advance, so these can have an opportunity to remediate to the situation if possible (Aguas de Cartagena n.a.). However, as has been described above, AGUACAR has taken some initiative to serve the most vulnerable and poorest population, and although more could be done, on the side of the municipality by including the missing *comuna* Nelson Mandela and the various *barrios* of El Pozon into its municipal geographical border coordinates, the efforts AGUACAR had made cannot be dismissed. Moreover, courts in Colombia have ruled in favor of the protection of children with a ‘pro-infans’ principal, where the rights of children should be especially protected. Other court decisions in Colombia, have ruled that service should not be cut when due to insurmountable force or unintentional non-payment, which is justified by the right to dignity and health (Giupponi and Paz 2015).

Similarly, in Tucuman the water was also allowed to be cut off by Aguas del Aconquija after three months of non-payment and had to formally notify the customer as well. However, it seems that the company never did cut off the service but only “made legal threats against the utility customers directed at cutting off service” (Giarracca n.a.). Additionally, when the contract was renegotiated but rejected by the concessionaire, it was unable to cut service until departure of the company, this lasted for almost a year, which is about half of the concession’s lifetime (Ferro 2001).

3. Subsidies

As mentioned earlier, in Cartagena, the buying of votes is a common occurrence and has also be done through the municipal assigning of subsidies “by allowing it to

place a building where political support is housed in a low level with reduced tariffs” (Mayaux 2012). Moreover, a number of studies have shown that the cross-subsidies scheme in Colombia tends to increase inequalities (Estache, Gomez-Lobo, and Leipziger 2001; Plummer 2013).

In Tucuman, although subsidies were discussed during the contract negotiations, they were never implemented. Even if they had been implemented, they had been agreed to not go over 5% of the consumer’s bill, which would not have been substantial enough (Crenzel 2004). In comparison to the subsidy system in Cartagena, the cross subsidies appease the poorest consumers by paying three quarters less than the highest paying consumers and about half of the average consumer’s bill (Nickson 2001). Thus, from the subsidy standpoint, even though there might be some critics of the cross-subsidy system in place in Cartagena, their existence is an important factor in the ‘success’ of the concession. Conversely, it could be argued that the subsidies did not end up playing a factor in the termination of the concessions, since at the peak of the protests, 86% of the Tucuman population were not paying their bills (Castro 2016; Crenzel 2004).

4. Auditing

Another important contributing factor to inequality, which is worth noting in Cartagena is the auditing of AGUACAR (or lack thereof). “Until a new auditor was named in 2008, the contract had been externally audited only once, in 2002, and then by a professional with links to the local business community. In those days, the decision-making process within the company then functioned in “black box” mode, opening the way to all sorts of suspicions of shady deals between the municipality and the operator”

(Mayaux 2012). Suspicions have been particularly strong vis-à-vis sewage dumping, which, if not treated appropriately can have severe consequences on the environment and consequently the population. According to Mayaux, 60% of untreated water was discharged into the lagoon. This statement is confirmed in a study on Lead (Pb) levels in children's blood samples, the authors describe the Cartagena Bay and the Tesca March as water bodies that receive untreated urban sewage, validating the suspicions of 'shady deals' that Mayaux mentioned, resulting from a lack of independent auditing (Olivero-Verbel et al. 2007).

Furthermore the SSP has never audited CRA (Mayaux 2012).

5. Pareto Improvements

A bi-product of private sector participation on the society is the budget of the available budget of the municipality for other social program such as for the health and education sectors. The budget was significantly reduced when, in the name of operational efficiency, over 50% of the employees were laid off and the municipality of Cartagena had to pay for all of their pensions, a cost of over \$8 million a year (Nickson 2001). The improvements are not Pareto, because the municipality is losing its budget to invest in social programs, which is a loss for the society. Additionally, the municipality is financing the subsidies and has a monthly average deficit of over \$200 000 per month. Consequently, the improvements are not Pareto for both the society and the municipality, whom are worse off than before privatization (Mayaux 2012).

The same situation can be argued for the pensions of the laid off workers financed by the Tucuman province. However, there were no Pareto improvements either way. The

civil society was discontented and the concessionaire was serving at a loss (due to the no-payment campaign). In Tucuman, every party ended up worse off.

6. Environment

From an environmental perspective, the results are mixed in the Cartagena municipality. As mentioned above, from a pollution perspective, the sewage is left untreated and discharged into the lagoons, contaminating those water. From a conservation perspective, there have been reductions in leakage of pipes (net water losses). There has also been a reduction in consumption per user from 34 cubic meters per month in 1997 to 20 cubic meters per month in 2005 (Ducci 2007). This is only possible to measure because they are meters in place. For the individual connections there are mostly micro-metering systems in place, for the communal distribution put in place in the Nelson Mandela *comuna*, there are macro-meters (Sislen 2010; Nickson 2001). However the reduction in tariffs, although a positive from the consumers perspective, also contradicts that measure are in place to combat future scarcity (Marin 2009).

In Tucuman, the environment was not protected. First, as Crenzel point out, there was no environment protection taxes (Crenzel 2004). Second, the water was unmetered, because the investment needs for the project were too costly to install meters (Post 2014). Third, the manganese contamination proves that there was weak monitoring of El Cadillal dam, the water source. Forth, primary and secondary sewage treatments were goals of the concessions, yet there is only one primary sewage treatment plant in San Miguel de Tucuman (Crenzel 2004). Accordingly, only 10% of the sewage was treated effectively; which negatively affects the quality of the water. In the Tucuman province

the mortality rates are the highest in the country and fluoride level exceeded the 0.10ml/L (Calcagno, Mendiburo, and Novillo 2000; Giarracca and Del Pozo 2005). One positive on the conservation aspect is that leaks were modestly reduced and that there was volume conscious pricing, differentiating between residential, commercial and industrial users' tariffs. (Crenzel 2004; Marin 2009).

Conclusion

Looking at the service area, human right, subsidies, Pareto improvements and the environmental factors in both concessions, we can see that the structural violence was much stronger in Tucuman than in Cartagena; as opposed to the conclusion in the preceding chapter (Chapter V) where the structural violence was relatively the same when looking at the concessions from a public participation view point. Cartagena did leave some areas to be desired, but it seems there is a willingness to work towards them. For example, the areas outside of the legally define limits are trying to be reached, the right to water when dignity is affect or affects infants' access is also protected. In Tucuman, only the human right to water seems to be especially valued, although not technically in the Argentinian constitution.

As shown in the previous chapter (Chapter V) and from the perspective of structural violence, we came to the conclusion that 'success' is defined as a lack of public participation, and this is the factor that weights the most. However, in this chapter we found other factors that can be plugged into the definition of 'success'. There is structural violence reflected in the absence of individual connections in unofficial settlement, consequently 'success' is also an absence of connection to the water system for illegal

settlements. From the right to water perspective, 'success' is an unguaranteed universal access to water; and from the environmental perspective, 'success' is conservation that makes financial sense.

Even if the cross-subsidy system in Cartagena could be improved its presence is significant. The issue with the subsidy model in Cartagena is that it tends to subsidize more of the population than only those who qualify for it. If the cross-subsidy model in Cartagena was modified, it would relieve some of the financial burden on the municipal government. The presence of subsidies seems to weigh the least in the structural violence of 'success'. However, the absence of subsidies is a crucial factor of structural violence.

VII. CONCLUSION

The conflicting views on the subject of water privatization are irreconcilable. On the one hand, those against privatization believe the government should provide this basic need to its citizens and that firms driven by profits do not have the citizen's wellbeing or even the best intention at heart. On the other hand, those who espouse water privatization initiatives advocate that private companies are better suited for the job because of their expertise and experience. A number of developed countries, such as France and England, have been providing water to the majority of their population through privatization schemes. Even though there are certainly disputes, even in those countries about the quality, price or transparency, the fact is that they have provided the service and have prospered in these countries. It is this prosperity that has made some of these providers to become international company: Suez, Veolia and Thames water. Their experience and expertise cannot be disputed, but their adaptation to different political environment can prove to be difficult.

Yet, some governments are unable or unwilling to provide basic water supply and treatment. Providing these takes capital, which some of the developing countries do not have, especially in Latin America when the financial crisis started to hit the countries starting in the early 1980s, known as the *Decada Perdida* ('the lost decade'). These countries had defaulted on their foreign debt and had no choice but to reform the delivery of their public services according to the standards set by the development banks, if they wanted to get additional funding. Accordingly, this opened the door for neo-liberal

reforms and the ensuing economic model, which the lending banks were advocating for and using as a condition to grant further funding. Most of the privatization schemes have been awarded to transnational providers and have in some cases had a hard time acclimatizing to the new environment. However, even when local firms have been involved in the process, disputes have arisen and led to a termination of the concession. In her book entitled *Foreign and Domestic Investment in Argentina: The Politics of Privatized Infrastructure*, Alison Post reviews a number of concessions cases in Argentina and finds that, when local domestic firms are involved in the privatization process, operations and the life of the concession seem to be more prosperous than when foreign firms implement from abroad, with their set Western ways (Post 2014). Post's argument would be interesting to study in depth in more countries, but from a first look at the ten cases studies in Chapter IV, it seems there might be some truth to her argument. In Salta, Argentina, even if the concession was eventually cancelled, there appears to be less structural violence than in other concessions where the private firm was foreign. The same seems to be true for the concession in Cancun, Mexico, especially when compared to the Aguascalientes concession, which is regulated more rigorously than its counterpart in Aguascalientes. Therefore, one solution could be to reconcile the local political environment with the implementation fashion of foreign firms.

Aware that privatization in the water sector is still strongly present and will be for a while, this thesis offered a different perspective on the definition of 'success' in these initiatives. Providing this new understanding and adopting a different perspective on 'success' could help remediate the structural issues that might lead to more consequential

episodes of violence, as Galtung explains in his essay on ‘Violence, Peace, and Peace Research’ (Galtung 1969) .

In this thesis, the spheres that were identified as factors that affect structural violence were ‘society’, ‘human rights’ and the ‘environment’. From my analysis in Chapter IV, V and VI, I am able to answer my thesis question: **How is success defined in water privatization initiatives in Latin America?**

Success as defined in the status quo (typified by the World Bank definition) fundamentally lacks public participation and consultation, possesses inappropriate subsidies and insufficient efforts to connect illegal settlements, does not guarantee access to water and fails to make adequate conservation efforts that are not financially viable. If goal six of the SDGs is to be reached and privatization is utilized to help attain the targets of goal six, the supplemental definition of success that I offered should be taken into account.

The ‘society’ sphere had the ‘public participation/consultation’ category which weights the most for the definition of success that I have offered. However, it weights the least in the World Bank’s definition since public consultation or participation is almost inexistent in all of the ‘success’ cases. As shown, in Cartagena, Colombia, the mechanisms for participation exist on paper but are idle. As shown in Tucuman, Argentina, the absence of these mechanisms led to civic protest which ended up pushing for the cancelation of the concession. The take away message is that the lack of participation or consultation can be a dormant issue until citizens reach a threshold of discontent, and then protests or violence can erupt. Citizens can be discontent about the

tariffs, the rates or the quality, but if channels through which citizens can air their grievances are absent, then issues are likely and waiting to occur. A channel that would allow for citizen's participation would ease and appease some of their concerns. This mechanism would provide them with the information and knowledge about the project, needed to either put their concerns at rest or enable them to have the appropriate information with which to find a solution.

The other categories in the 'society' sphere that are also important are the issue of subsidies and illegal settlements, which both affect the poorest most. Here, structural violence is social injustice for the poor. When privatizing the water system, these issues need to come up at the time of contract negotiations. Priorities should be clear and optimally should prioritize the poor's accessibility to the supply network and have a subsidy scheme to ensure the poorest access and affordability of water. At first look, in Cartagena, it seemed this was the case, however when taking a deeper look at the situation, the cross-subsidy model tends to increase inequalities, and the illegal settlements do not have individual connections or a guaranteed continuous access to the system. Pareto improvements do not weigh on the definition of 'success,' because it is normal that at the beginning of a concession one party might be worse off. Over time, improvements can be Pareto, as is the case with Chile.

The 'human rights' sphere, which is concerned with a right to water, is the subject of a guaranteed access to a minimum volume of water per day, as to meet basic needs. In order to survive, humans need a basic volume of water for them to live in health and dignity. In her article entitled 'The "Commons" Versus the "Commodity": Alter-

globalization, Anti-privatization and the Human Right to Water in the Global South', Bakker notes that privatization is compatible with human rights as long as there is a requirement that prohibits disconnection to residential consumers (Bakker 2007). As we notice from the ten cases that were studied, this does not seem to be the case in any of the classified 'successful' cases by the World Bank. This is the reason that I have defined success as an unguaranteed access to water, and is thus, unmet basic needs. To be fair, in some countries, such as Colombia, judicial courts have ruled in favor of a guaranteed access to water for some vulnerable persons; yet, this is not a universal protection of all vulnerable populations. Because of the nature of privatization, a return on investment and potential profits need to be made by the concessionaire for its operation to survive, which why cutting off supply is allowed even in countries where the right to water is in the constitution. Perhaps a middle ground could be negotiated, where a non-paying consumer's supply would not be cut off but would be limited to the basic minimum based on the World Health Organization and would be of 20 cubic meters per person per day (World Health Organization n.a.).

The Environmental category qualifies as structural violence, because it is an injustice to future generations. Most likely because the concessions are short term, in the grander scheme of things, conservation or precautions for climate change are not at the forefront of the agenda. The 'successful' cases however all have in common the installation of meters and volume conscious pricing. These two measures do lead to conservation, because it makes the user aware of how much water is consumed. Additionally, because there is a cost associated with the volume used, it prevents wasteful

water use. Volume conscious pricing and the installation of meters adhere to the vision of market environmentalist — that privatization is a way of addressing environmental problems through neo-liberalism reforms. However, the net water loss reductions numbers contradicts this notion. In the definition I offer, success is the reduction of water losses as long as it is financially viable; optimal level leakage in Chile is the case and point. Overall, success from the environmental perspective is conservation until it doesn't make financial sense. Conservation makes financial sense because the installation of meters and volume conscious tariffs allow the firm to gain more revenue (as opposed to estimated water bills). Conservation does not make financial sense when the repair of leaking pipes will cost more than the water that could be saved and billed.

Having now provided a different perspective on the definition of 'success' in water privatization initiatives, it is important to anticipate and address the arising issues of structural violence. The structural inequalities are direct violence waiting to erupt. At the rate privatization and particularly concessions are being implemented, the chances of violence erupting are increasing. By incorporating a public participation channel in privatization schemes and ensuring its functioning, some of the structural violence can be diminished. Other solutions, such as prohibiting cut of water supply and setting a minimum supply in case of non-payment can also be implemented. Finally, a long-term environmental plan that promotes conservation but also takes precautions for climate change should be part of the implementation equation.

I hope that the new definition of success provided can be used and combined with the existing definition of 'success' provided by the World Bank. Although factors such as

the lack of public participation do not seem to be affecting the standing of the concession at the moment, they could in theory lead to direct violence. Including all of the factors and sub-factors identified in this thesis when implementing new privatization initiative (or improving implemented ones) would benefit the long term stability of the concessions, and the well-being of the society. This should be kept in mind when making efforts to achieve goal six of the SDGs to ensure access to affordable drinking water and sanitation for all.

KEY TERMS AND CONCEPTS APPENDIX:

Privatization

For the definition of privatization we will use the Pacific Institute definition:

“**Privatization**” in the water sector involves transferring some or all of the assets or operations of public water systems into private hands” (Gleick et al. 2002). In other words, privatization is the transfer of ownership of water supply systems to the private sector (Bakker 2007), turning publicly owned enterprises to the private sector (Stiglitz 2012). This definition is important because there are different ways to privatize water; some include simply the management, others the ownership of the overall infrastructure and others the complete privatization, including the water source. **Private sector participation** falls into that definition and is often interchangeable with privatization when privatization isn't complete (thus, excluding the water resource). Private sector participation is “the construction, operation and management of the publicly owned water supply systems by private companies” (Bakker 2007). In this thesis, I will look at concession agreements, which fall under the umbrella of private sector participation and privatization. From the literature, authors refer to concessions as privatization or private sector participation, depending on the author.

Concessions

Concessions are when “the state (or municipality or other public entity) delegates to the private sector the right to provide a service, yet retains some control over the sector by incorporating in a concession contract or license the terms and conditions—including the rights and obligations of the service provider—that will govern the infrastructure project or company” (Guislain and Kerf 1995). From this definition, because the terms and condition of the contracts vary from on model to another, they are various types of concession. The Pacific institute defines these variations:

The ‘full-concession’ model transfers operation and management responsibility for the entire water-supply system along with most of the risk and financing responsibility to the private sector. Specifications for risk allocation and investment requirements are set by contract”(Gleick et al. 2002).

The variations of concession agreement include Build-Operate-Transfer (BOT), Build-Operate-Train-Transfer (BOTT),Build-Own-Operate-Transfer (BOOT), Rehabilitate-Operate-Transfer (ROT), and Build-Operate-Own (BOO) (Gleick et al. 2002), these still fall under the definition of concession but are more specific in what is expected from the private entity and the future of the ownership of the capital facilities and whether they are expected to transfer back to the public sector or not.

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