

**THE STRUCTURE OF CORRUPTION IN THE WATER AND SANITATION
SERVICE: THE CASE OF COLOMBIA**

By

CAMILO LOMBANA CORDOBA

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
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Approval as of July, 2011

ABSTRACT

The present thesis describes the complexity of the water and sanitation sector, its particularities in Colombia and the various forms on which corruption takes place from policy making to payment for services. The argument advanced in this study is that corruption in the Colombian water and sanitation sector occurs along the whole collusion chain in a cascading process. This thesis identifies the structure and loci of corruption, explains how its operations, and how government may possibly intervene in its abatement. The thesis argues that the people in rural area in Colombia suffers from the lack of access to water and sanitation service, not primarily because of the government underinvestment in the sector scarce financial resources but more importantly largely because of the evaporation of the money through embezzlement and mismanagement.

In order to control this debilitating condition, it is important that policy makers understand the loci of corruption in the political economy of water and sanitation and intervene strategically in the corrupt chain that devours public resources. Unless this malignant state is contained, the Colombian people, especially those in the rural area, would continue to suffer from the lack of access to quality water and sanitation services.

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I. Introduction

Transparency International (2008) defines corruption as the abuse of entrusted power for private gain. In reality, corruption is much worse than what the word “abuse” imparts. It is disease that plagues everything that surrounds it. It maims a democratic system of government, it betrays people’s trust in their institutions, and it robs people of their motivation to participate in self-governance. Economically, corruption distorts the market as it subverts fair competition and robs the resources that are badly needed for national development, let alone the elimination of poverty.

There is more. Corruption widens the gap between the rich and the poor--in two fundamental ways: first, the perpetrators are usually wealthy elites, and corruption makes them richer. Second, the money intended for the poor never reaches them. So the corrupt regime heightens the relative deprivation of the have-nots. As a debilitating disease, corruption jumps from one place to another searching for a safe haven that grows it and feeds the insatiable appetite its perpetrators. There is no place to better explain this sad condition than in water and sanitation service. Historically, this sector has been a cradle for corruption because the supply and demand process is complex, which involves multiple stakeholders with elusive pecuniary ambitions. The water and sanitation service is also a fertile ground for corruption because of its monopolistic characteristics, as well as a vast amount of money it handles. These characteristics conduce to a perfect environment for bribing, stealing, and kickbacks, and many others corrupt activities. Due to the prevalence of these unsavory practices, the already limited financial resources fade away, just as

the water does in a leaking pipeline. To date, according to Transparency International (2008), worldwide, 1.2 billion people are denied access to water service, and 2.6 billion don't even have proper sanitation facilities, all owing largely to corrupt practices.

In Colombia, which is the focus of this thesis, the corruption in the water service and sanitation industry follows basically the same pattern observed worldwide. The government of Colombia has invested a large sum of money, \$7.5 billion, from 1993 to 2006, for the development of the water and sanitation service, but according to Superintendencia de Servicios Públicos Domiciliarios (2007), many in rural areas still do not have access to water and sanitation service. Experts believe that the money allocated for the industry was sufficient to build a comprehensive water and sanitation system. Silvia (2005), for instance, argue that the money could provide the people in rural areas 100% access to water supply and 95% access to sewerage service. Unfortunately, the access at the end of 2006 was estimated only at 88% for water and 78% for sanitation, respectively (Silva 2005). These statistics confirm a widespread suspicion that a significant part of the resources allocated to the water and sanitation service might have been evaporated in the complex chain of corruption in the supply and demand process.

Literature abounds that the leakage of the funds allocated to the water and sanitation service occurs through a complex system of middlemen and contracts. This allows me to hypothesize that the public resources available in the water and sanitation service in Colombia would dissipate incrementally at every step in the cascading supply-and-demand process (I show this in Section IV). If this hypothesis is true, the Colombian people would continue to suffer from the lack of access to

quality water and sanitation services—sadly, not because of public resources, but because of the corruption network.

It is important that the government of Colombia stop the leakage as quickly as possible and channel its resources to the construction and delivery of water and sanitation service to the people, especially those in rural areas. To do this, however, policy makers must understand the underlying structure of corruption and identify where the resources are leaking and how. Were they to control this maligned practice, policy makers must identify the locus of corruption in the political economy of water and sanitation and scrutinize how the budgetary resources are evaporating at each leakage point in the cascading corrupt chain.

The purpose of this study is to identify the potential sources of leakage in the water and sanitation service in Colombia and provide examples that elucidate the dissipation of the public fund for infrastructure development. To complete this study I first draw upon the literature on the corruption of the water and sanitation sector across nations, then the field observation that I have garnered while working in the water and sanitation sector in Colombia for the past seven years.

The central thrust of my effort in the study is to disentangle the complexity of corruption in the water and sanitation service sector, thereby to establish an empirically testable collusive chain. My objective in this thesis is to identify the stakeholders (potential perpetrators) involved in each link, their collusive relationship, and the potential corrupt practices. To add strength to this hypothesis, I, first, build a model of the corruption regime in Colombia's water and sanitation sector based on

general literature, then explain how embezzlement and mismanagement of the budgetary resources take place at each step in the process.

The presentation of this study will begin with a brief definition of corruption; this will be followed by a description of the water and sanitation sector and its particularities in Colombia, including the decision making chain from policymaking to construction at the local level.

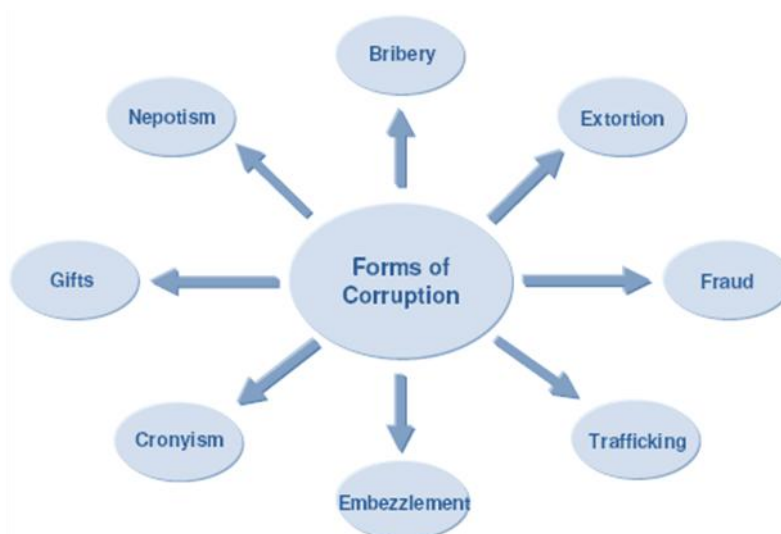
II. Corruption: Concepts and Definitions

The purpose of this section is to overview industry literature as it relates to the water and sanitation corruption. The overview will focus on the drivers and consequences of corruption indentifying the cost that this practice represents for the society. Finally I will have an outline of the corruption in the water and sanitation sector, based on previous researches associated with the topic, explaining some punctual forms in which corruption takes place.

Corruption comes in many shapes and color, but since I am dealing with public service, I am borrowing the concept from Transparency International (2009): corruption is the abuse of entrusted power for private gain, which means having personal interests above those of the people and ideals the person is pledged to. This definition can be complemented with the definition given by Joseph Nye (1967) who thinks it as a behavior that deviates from the normal duties of a public role because of private, pecuniary or status gain, or violates rules against the exercise of private-regarding influence. Corrupt acts can be committed directly or indirectly, with any other group or body, which can be public or private and for the benefit of the perpetrator, or some other party. Official misconduct would include behavior such as fraud, theft, embezzlement (appropriating assets by individuals to whom such assets have been entrusted), perverting the course of justice, bribery (use of reward to prevent the judgment of a person in a position of trust); nepotism (appointing

someone due to relationship rather than merit); misuse of policy instruments (making public policies in favor of certain group) and misappropriation (illegal appropriation of public resources for private use). These malpractices among others deteriorate any field of the public administration where they find place to settle. Figure 1 shows some of the most common forms of corruption

Figure 1: Forms of corruption (WB 2010)



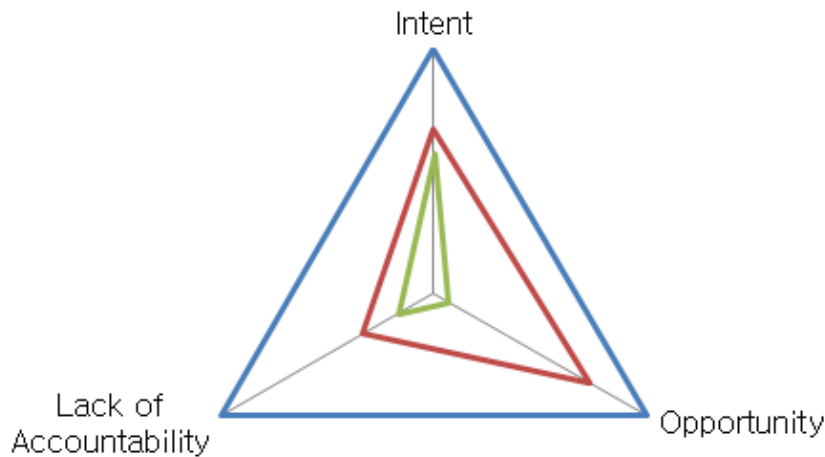
A. Causes of corruption, the Drivers

Corruption or corruptive act requires at least two parties just as tango requires two ; it is not an one-dimensional problem; it encompasses a range of interactions between and among interested parties in society, each with its own dynamic (WB 2010). Corruption can occur in private firms or in the public service. However, the attention in this study is focused on the public sector. Corruption in private enterprises relate to the ineffective control established in the organization.

Corruption in the public sector, however, is much more diffused, hence more difficult to deal with.

In fact, having two parties is not the only condition needed to have a corrupt act; there must be intent in the mind of the perpetrator, which can be motivated by different causes like not having cultural and moral values, having personal financial problems, being in an “everyone else does it” environment, being exposed to external pressure or having ideological driving forces to commit the perverse act (Campos 2007). The second basic condition surrounding every act of corruption is the opportunity, which is the set of characteristics that form the perfect environment for a perpetrator (Jones 2004), who previously has the intention to commit the corrupted act. Opportunities can arise from almost any conditions and people with bad intentions are waiting for them; sooner or later the opportunity will appear and there is where the last condition emerges; it is the accountability: the acknowledgment and assumption of responsibility for actions, decisions, and policies where the individual has obligation to report, explain and be answerable for resulting consequences (Jones 2004), in other words it represents the fear of the perpetrator of getting caught after committing a corrupted act. Then these three forces: Intent, opportunity and lack of accountability form a triangle that determines the possibility of having or not a corrupted act. For example, if there is no intent to commit these kind of practice and there exist the opportunity of doing it and low chance of being caught, there will not be any misconduct. Figure 2 presents the triangle of corruption, with some hypothetical combinations of the factors; here the greater the area of the triangle, the higher the probability of a corrupt act.

Figure 2. Triangle of Corruption



B. Cost of corruption, the Consequences

Corruption impacts people's lives in many ways. In the worst case, corruption costs lives. In some other cases, it costs their freedom, health, or money. It has terrible consequences, trapping millions in poverty and misery, while breeding social, economic and political unrest. Corruption is both a cause of poverty, and a barrier to overcoming it. Here are a few examples. Let's try to analyze how corruption charges its fee to the society. First, corruption goes against the fundamental human right to fair treatment; all persons are supposed to be treated equally, and when one person gives a bribe to a public official he or she buys a privileged status in relation to others. He becomes an 'first-category citizen' while others are 'second-category citizens' and the less money you give –or you have to give- as a bribe the deeper you go on this evil "categorization" – and it comes to our mind the position of the very poor people, women, ethnic minorities, or refugees. Evans (1999) characterizes corruption as

“profoundly inequalitarian in its effects - it has a ‘Robin Hood-in-reverse’ character. In the same vein, Bayley (1998) characterizes bribery as “a direct transfer of money from the poor to the rich” (cited in Evans, 2000). Furthermore, corruption makes the public decision-making process to be biased, due to prevalence of personal enrichment over the establishment of welfare for all. Therefore, government expenditures will be prioritized according to opportunities of getting bribes or political gains rather than on the basis of public well-being, which ends affecting the poor more than the rich.

According to Transparency international (2010), the cost of corruption has three dimensions: political, economic and social. Politically, corruption is a major obstacle to the road to democracy and the rule of law. When government institutions are caught in corruption scandals, they lose their legitimacy. Economically, corruption leads to the diminution of national wealth. It is often responsible for the allocation of scarce resources to uneconomic high-profile projects, such as building dams, power plants, pipelines and refineries that are not needed in the first place. As the scarce resources were diverted to elsewhere, the government has no resources to invest in primary infrastructure projects such as schools, hospitals and roads, or the supply of power and water to rural areas. Furthermore, it impedes the development of market structures and distorts competition, diminishing investments in the country and economic growth. In the social field, corruption reduces people's trust in the political system, in its institutions and in their governors. Distrust from this disappointed citizens result in a weak civil society. The corruption becomes the law in the country and those who do not tolerate it have to escape from the country

depriving it from the most honest and sometimes best qualified citizens.

III. Corruption in the Water and Sanitation Sector

Water is the basic natural resource for our existence. It is indispensable for human survival. In larger perspective, it is *sine qua non* for national development. Without water, it is not possible to achieve economic growth, obtain industrialization and enjoy hydropower. Improving water related institutions and investing in infrastructure is the same as investing in health, jobs creation, education, gender equality, work efficiency, environmental preservation and infant mortality reduction. Unfortunately, corruption negates these efforts. Corruption in the WSS keeps the poor to remain in poverty and makes humanity projects such as the United Nations' Millennium Development Goals (MDG) impossible to achieve. According to Water Integrity Network (2010), there is no other area where corruption directly and profoundly affects the lives and livelihoods of billions of people as in the provision of water.

Corruption can be found at every step in the WSS value chain: from policy design and budget allocations to operations and billing systems. Corruption affects both private and public water services and it is not exclusive illness of poor economies. In wealthier countries, corruption is present in the awarding of contracts for building and operating water facilities and infrastructure. According to Transparency International (2008), corruption in the WSS worth an estimated of

US\$210 billion annually in Western Europe, North America and Japan. In developing countries, corruption is estimated to raise the price for connecting a household to a water network by as much as 30 per cent.

It is reasonable to ask why policy makers find it difficult to eliminate the root and branch of corruption in water and sanitation service. As I have alluded earlier, the scale and depth of corruption in water and sanitation service is truly complex. First of all, the governance of water cuts across many jurisdictions. As a result, it defies legal and institutional classification creating a regulatory lacuna and leaving governance dispersed and fragmented across different countries and different agencies, which creates an intractable array of loopholes that perpetrators can exploit with impunity. What is worse, most countries approach water management largely as a technical issue and an engineering challenge. What is really needed is to conceptualize the management of water essentially as a political, economic, and social issue.

Water management involves large flows of public money. It is much more capital intensive than the management of other utilities. Large water management, irrigation and dam projects are complex and difficult to standardize, making procurement lucrative and manipulation difficult to detect.

Private investment in water management is growing in countries. So is the risk for high corruption. Nine of the ten major growth markets for private sector participation in water and sanitation are in countries with high risks of corruption, posing particular challenges for international investors (Water Integrity Network 2010).

Informal providers, often vulnerable to corruption, continue to play a key role in delivering water to the poor: Informal water providers provide important bridging functions in many developing countries to bring water to the poor. They often operate in a legal grey zone, however, making their operations vulnerable to extortion and bribery.

Corruption in water most affects those with the weakest voice: Corruption in water often affects marginalized communities, the poor or – in the case of its impact on the environment – future generations. These are all stakeholders with a weak voice and limited ability to demand more accountability.

As a result of these especial features, we can see how the money allocated to improve the water and sanitation services, mainly for the poorest part of the population, evaporates through embezzlement and mismanagement, leading to an awful scenario with the consequences already explained..

IV. Literature Review

A. Patterns of Corruption in the Water Service Delivery Process

Davis (2004) shows the frequent payments done to obtain the service, and the bribes given to junior staff of public W&S agencies by household members. These payments were made in order to speed up applications for new connections; quicker attention to water supply and sewer repair works; the falsification of water bills; and the provision or ignoring of illegal service connections. According to Davis (2004) field research, it appears that customers who were unwilling or unable to pay cash for rapid attention to their W&S service problems were supposed to pay with their time. Finally the mentioned author divides the corruption in the water and sanitation sector in two stages, which are explained in the next lines.

1. Corruption in Contracting Out

To describe the corruption that takes place in this step of the chain, Davis (2004) interviewed field staff and they pointed to the procedures by which professional engineering staff award and implement construction contracts with private firms. Two processes operate to weak fair and honest contracting in WSS: contractor cartels and political influence in contractor selection. Although almost all water companies have some form of competitive bidding; contractor cartels are always operating.

Cartels subvert the goals of competitive bidding by deciding the outcome of such processes ex ante among their members; to do so, a group of contractors decide who is going to win which contract for an especial water company; this person sets the price that he will bid for that contract and everyone else bids a lower price. In this way the real price of the contract goes up letting enjoy a “surplus” that partly goes to pay other contractors for their cooperation in the process.

2. Corruption after Awarding the Contract

While the contract is taking place, there are two possible ways of committing corrupt acts, both of them with the complicity of the agency in charge of the contract. The first is the use of substandard materials, which means that the contractor is employing materials that have the same utility but with a lower quality, so at first sight they appear to fulfill their mission and may let the whole facility being workable but not at the whole capacity or during the design term. The second one is the falsified invoicing in materials, This practice is common in many infrastructure projects that cannot be checked after the construction, for example the buried pipelines, where the agency staff approves a bill for a higher amount of work than the one that was done.

B. Corruption identification and control experience in the WSS in Colombia

Private Sector Anti-Corruption Agreement in the Pipe Manufacturing Industry (Water Integrity Network, 2008):

In Colombia, the procurement of pipes for water supply and infrastructure has been vulnerable to corruption and fraud. The conditions established to participate in the tendering process often tend to favour single bidders, without consideration for the technical analysis justifying given requirements. Moreover, the bribes are frequently offered in the contracting processes. These practices resulted in the loss of large sum of public resources for water and infrastructure projects.

In 2004, the Colombian Sanitary and Environmental Engineering Association and Transparency International Colombia, established a sectorial Anti-Bribery Agreement, In order to reduce the mistrust and lack of credibility ruling the pipe manufacturing industry. Pipe manufacturing companies (95% of the companies) signed an Anti-Bribery Agreement in April 2005, stipulating that each company was going to introduce a general anticorruption program as specified in Transparency Internationals' Business Principles to Counteract Bribery (BPCB), establishing corruption control programs in: pricing and purchasing, distribution and sales schemes, implementation mechanisms, internal controls and audits, HRM, communications, as well as the protection of 'whistle blowers'.

As mentioned in the study case (WIN 2010) the main reasons that allow corruption to find a niche in the WSS and the strategies to control them were:

Lack of an Anti-corruption Corporate Culture

- Offer employee training on the Agreement's content
- Provide Human Resource Management (Addendums to labor contracts; Induction processes)

- Establish clear reporting lines for general managers and treasurers
- Boards of Directors need to formally support the Agreement
Absence of Internal Ethical Standards
- Establish detailed guidelines and disseminate Agreement widely
- Hold regional meetings to launch the Agreement (Corporate image for Agreement; Meetings with public officers; National media publications)

Lack of Transparency in Contracting

- The Agreement establishes new rules that go beyond legal statutes
- The Agreement encourages the public sector to establish similar guidelines
- The Agreement creates pressure for other suppliers to join the Agreement

Tolerance of Bribery Practices in the Distribution Scheme

- Offer regional Agreement training sessions with distributors

V. Structural Conditions for Corruption in Colombia's Water and Sanitation Service

After understanding the causes and the consequences of the corruption in the WSS and learning from international experiences a possible way of understanding the corruption chain in the WSS sector, I will describe the corrupt actions that can be committed along the collusive chain in the WSS in Colombia. For this purpose I will base the framework in the Value Chain Structure proposed by Plummer and Cross (2006) which divides all the activities involved in the sector in different stages. Afterwards, the possible actions for each stage will be identified. It should be clarified that the corruption scenarios mentioned are just potential scenarios and they don't compromise any of the institutions that will be mentioned as responsible for the countermeasures; the cases are mentioned based on the literature, personal experience and perception of the author.

Before discussing the possible sources of corruption in the study case, and in order to make clear the context of the sector which will be analyzed, I will present a general idea of the structure of the water and sanitation sector in Colombia.

C. Current Conditions of the Provision of the Water and Sanitation Services in Colombia

Over the last 15 years, Colombia has gone through an important change in the water

supply and sanitation sector. Between 1990 and 2004, average access to water and sanitation services increased from 82% to 86% and 92% to 93% respectively (UNICEF 2006). In 1994 public services reform was introduced with the purpose of increasing water and sanitation investments through transfers of resources and responsibilities to municipalities from the central government, trying to improve service quality and efficiency by i) Promoting private sector participation in those parts of the country where the profits were not enough for attracting private investment, ii) Establishing a regulatory agency at the national level, in charge of guaranteeing the quality of the service with a fair tariff that would allow the cost-recovery for the investors and iii) Aiding the users with less income through a cross-subsidies strategy in the form of neighborhood-based tariff. The result of this reform is that in the present 99% of the population living in the urban zone has access to water and 96% to sanitation services. On the other hand the rural zone does not have the same conditions and barely reach 70% on the service coverage (SSPD 2007).

The structure of the sector in Colombia involves different stakeholders with a common goal which is providing water and sanitation services to the population with the expected quality and a fair price; in this way, the responsibilities are divided in the following manner (The following description as well as other characterizations that will be done in this paper are partially based on my own experience and my field observations of the water and sanitation sector in Colombia, considering that I have worked on the sector for more than 7 years)

Policy Making and regulation duties are the responsibility of The Vice-Ministry of Water and Sanitation is in charge of defining the sector policy which follows the

national policy established by National Planning Department in the Development National Plan done by every president.

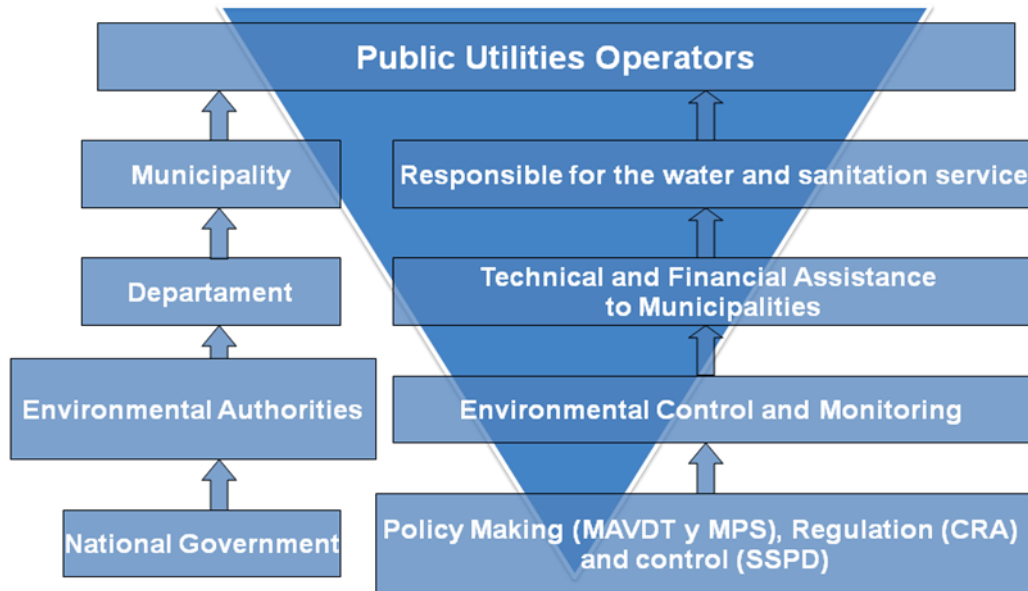
Responsibility for regulating these services is shared by two institutions at the national level. The Potable Water and Basic Sanitation Regulatory Commission sets the criteria for efficient service provision and sets the rules for tariff revision and the Superintendency for Residential Public Services, is in charge of controlling the application of the rules given for the sector. However, none of these agencies are responsible for corruption control. This issue is handled directly by the Attorney General's Office and Public Prosecutor's Office

Additionally, the environmental authorities are in charge of controlling and monitoring the impact of the waste water on the environment as well as giving the permissions for taking the natural resource out from the sources. However, the service provision is responsibility of Municipalities, with the assistance of Departments, both of which are responsible for ensuring that services are provided in an efficient way, which doesn't mean that they are responsible for its provision; in effect just under certain circumstances municipalities can directly provide the services. The public utilities operators, that can be public, private or both, are those in charge of supplying the services of water and sanitation.

In 2006, 53% of all suppliers were public companies, the remainder being direct municipal suppliers (15%), private companies (12%), official companies, which are companies that are not specialized in water and sanitation (13%), mixed companies (6%) and authorized organizations (1%).

The Figure No. 3 shows the hierarchy and how the responsibilities I found in my work are distributed among the entities involved in the WSS sector in Colombia.

Figure 3. Hierarchy and Structure of the Sector in Colombia



Although hierarchy is well established and responsibilities are well delimited, all the stakeholders are supposed to make investments for improving the quality of the services and therefore have a budget for it. The scope of investment for each institution is blurred and it is possible to obtain sub-optimal investments.

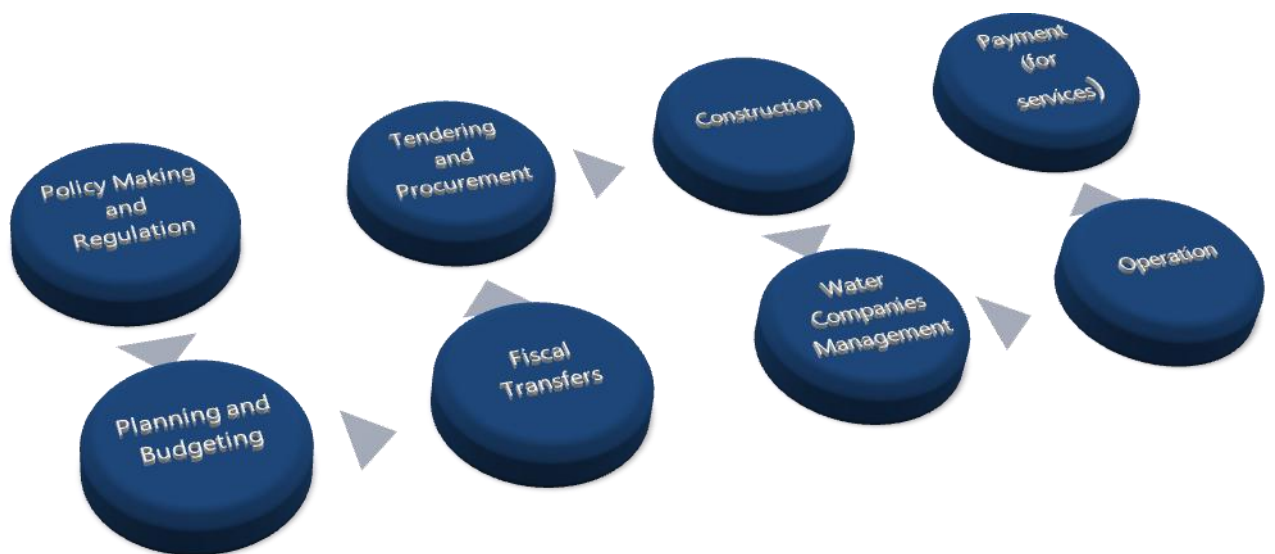
After understanding the context of the sector and the main institutions involved in delivering the services in Colombia we are ready to explore in detail the value chain and attempt to understand how corruption take place on every step of it.

D. The Value Chain

In order to identify the possible corrupt actions that can be committed in the sector, the Value Chain for the public services defined by Plummer and Cross (2006) will be adapted and used for this project; the presented framework accurately divides the

activities from the beginning, when the public policy is made, to the end, when the users pay for the service delivered. Figure No. 4 illustrates graphically the mentioned structure.

Figure 4. WSS Value Chain



We can attempt to estimate, in overall what percentage of money disappears along this chain; this exercise is based on Silva's work (2005) who figured out that between 1996 and 2003 the Colombian government and other stakeholders involved in the sector allocated money to increase service's access from 83% to 100% in water and 70% to 78% in sanitation, however the access to the mentioned services at the end of the period was 88% and 74% respectively (Refer to Figure 6 for graphic explanation). Then if we assume that the marginal cost of increasing the service access is constant, and linear relationship between invested resources and service's

coverage, we can infer that the leaking proportion, which means the money that does not reach the final destination, is around 70% on the water services and 50% on the sanitation services. These numbers are extremely alarming and should be taken as a focusing event to eradicate corruption from the water and sanitation sector. The following section will explain in detail how corruption takes place in every step of the chain.

VI. Analysis: Disentangling the WSS (The Points of Leakage in the Corrupt Chain)

Now that the particularities of the sector in Colombia have been clarified and the structure being explained, it is important to analyze the possible sources of corruption in the provision of the water and sanitation services. For this purpose the Plummer and Cross Value Chain is being grouped in three categories according to the similarities of the activities of each link. These categories are: *i)* Political-Administrative, *ii)* Management in Contracting Out and *iii)* Day to Day Management.

E. Political-Administrative Issues

This first category is related to the decisions that are made in the political sphere of the sector, and that are prone to be manipulated for political reasons or for self interest but getting advantage of the political power. This category may look oblivious to a casual observer but in reality is serious because with decisions that may seem to be insignificant, the citizens are being harmed in the long run and due to those decisions the companies have the chance to enjoy an extra profit. As examples of this category, we can see tiny increments in services tariffs for the customers, politically important regions consistently receiving more support from the government (while others not), and local officers misspending the money allocated for the water and sanitation sector

3. Policy Making and Regulation.

This is the birth place for the water and sanitation services as a sector; here, the government chooses what to do and what not to do in order to achieve societal goals. Public policymakers evaluate different aspects of water planning and management, then derive courses of action to balance interests. This is the starting point for possible actions when policymakers are unable to reach a consensus regarding a desirable future condition on a certain matter and different groups have opposed interests. Then every group will try to maximize its own interest giving room for making pressure on the policymaker.

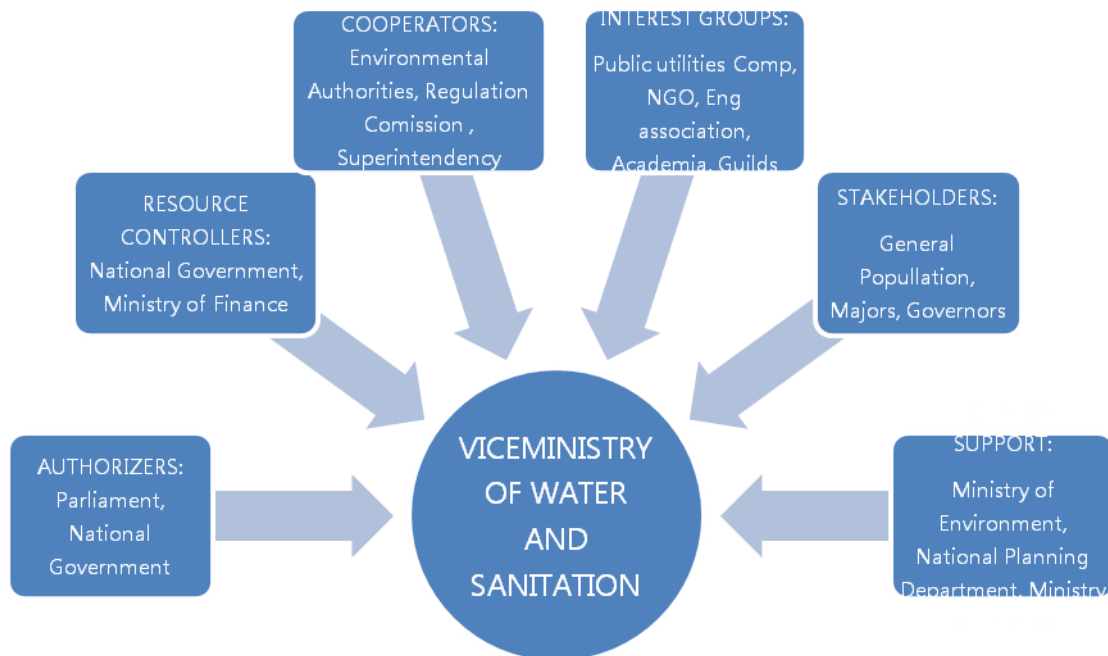
Ideally, policymaking process should be guided by core principles such as i) politicians and public servants are accountable to the public ii) elites, in politics and the private sector, do not have the right to pursue their interests without constraints. iii) Government bureaucratic and decision processes must be open, accessible, and transparent, as well as being responsive to public concerns. iv) Individuals and communities affected by projects have the right to information regarding proposed developments; the right to challenge the need for, and the design of, projects; and the right to be involved in planning and decision-making processes

Whenever the accomplishment of these and other principles start to be compromised, corruption finds a proper environment to take place.

The other part of this first link of the value chain is the regulation, understood as the intervention of the government to correct market failures such as imperfect competition, the consequences of externalities and the particularities of certain market attributes. The regulatory agency, on behalf of the government, has power to control the companies which have market power.

As mention before since the WSS in Colombia has many stakeholders it is prone to receive pressure in different forms from all of them. Figure No. 5 presents the external forces that affect and may interfere in the policy making of the ministry in charge of it.

Figure.5 Actors representing the external forces that affect the VWS



It should be clarified that the fact that any particular group tries to have its own interest represented in the policy making does not represent a corrupted practice, quite the opposite; it makes the process much more participative and therefore transparent. Corruption can take place when the agency in this case Ministry, created to act in the public interest, instead acts in favor of a certain group

or elite and by doing this, affects a group or the whole population the agency was suppose to work for.

How does corruption take place in the policy-making process ?

Authorizers: Usually publicly appointed officers, would try to influence the policy making process to give preference to the geographical zone where they were elected going against the most efficient policy or the benefit of the majority. This kind of practices happens as a consequence of the “cooperation” in between the executive and legislative branches of the government; when a line ministry needs the support of a congress man in a certain bill the congress man would “charge” for the collaboration in this manner, practice that is so called “log-rolling” .

Resource Controllers, Technical Supporters and Cooperators: These agencies or the public officers belonging to them may work in their own interest to facilitate their activities, obtain more power or increment their budget; these interested parties may use their political influence to alter the policy making process. Additionally, the public officers can be tempted to use their political power to work on behalf a certain interest group, leading to an indirectly capture of the regulator, practice that will be explained in the next paragraph.

Interest Groups: Among these groups we have the industry that the government regulates and is represented by the companies in charge of delivering the water and sanitation sector. They are associated in a guild and can make pressure in a cluster

or individually to get some advantage in the policy making, such practice is call the regulator capture occurs when a state regulatory agency created to act in the public interest instead acts in favor of the interests that dominate in the sector it is in charge of regulating. Regulatory capture is a form of government failure, as it can act as an encouragement for large firms to produce negative externalities. The main effect of this capture is the more favorable conditions for the company, in terms of longer periods for concessions, allowance of delivering a lower quality service and higher tariffs for the customers. Definitely this represents a zero-sum game where the population loses money and the companies enjoy a higher economic surplus.

Stakeholders: Although this a very important group that can make pressure on the policy makers the power is reduced and therefore their will does not influence the public policies deeply and when it does, it is not in a depraved manner.

2 Corruption in the Planning and Budgeting Process.

As I have described in the introductory part of the present section, the responsibility of the water and sanitation services in Colombia relies on different institutions and so is the planning and budgeting. Three dimensions can be clearly identified related to this matter; national level, local level (departments and municipalities) and environmental authorities' level. These groups are independent and autonomous and they do their planning activities separately without much coordination among them. Their interests are different and sometimes the result of their actions is not leading to the same target. However they use the same practices in planning and budgeting.

By budgeting the government (national or local) allocates the resources to the

prioritized needs of the sector; the budget represents the legal authority to spend money. Adoption of a budget in the public sector implies that a set of decisions has been made by the decision makers that end up matching the government's resources and interests with the entity's and public needs. As such, the budget is a product of the planning process

How does corruption take place in the planning and budgeting process ?

The main problem in planning and budgeting that opens the door for corruption is the directionality that may have the public servants in defining the prioritized needs and finding the interests of the public; therefore due to the lack of an objective tool to allocate the budget to the most needed plan, as well as the inexistence of performance budgeting structures, decision makers are tempted to plan in favor of their interests regions and allocate the money, during the planning process, to those projects that may represent better political opportunities for them or their commanding political party. As a consequence regions or zones with low political representation are shortchanged in the allocation of resources and therefore their projects are going to be repeatedly postponed even though they represent a real priority for them and may be much more important than others in different zones.

3. Fiscal Transfers.

As explained before, the institutional structure of the WSS in Colombia is based on the separated functions between the different government levels. This is how the central government is in charge of policy making, regulation, supervision and control

while the municipalities are those in charge of guaranteeing the efficient deliverance of the water and sanitation services. Since the fiscal revenue in the local level is characterized by being low and inefficient, municipalities- particularly small sized ones- do not have enough resources to carry out the task assigned by law. Therefore, it is necessary for local administration to access to central level resources in order to fulfill their mission. For the specific case of the WSS, there are two mechanisms that allow central government to transfer resources to the local level with this purpose. The first one is direct transfers of money from central level and the second one is support for specific projects in a certain municipality. In the next lines I'll explain possible misbehaviors in the money transfer for the WSS.

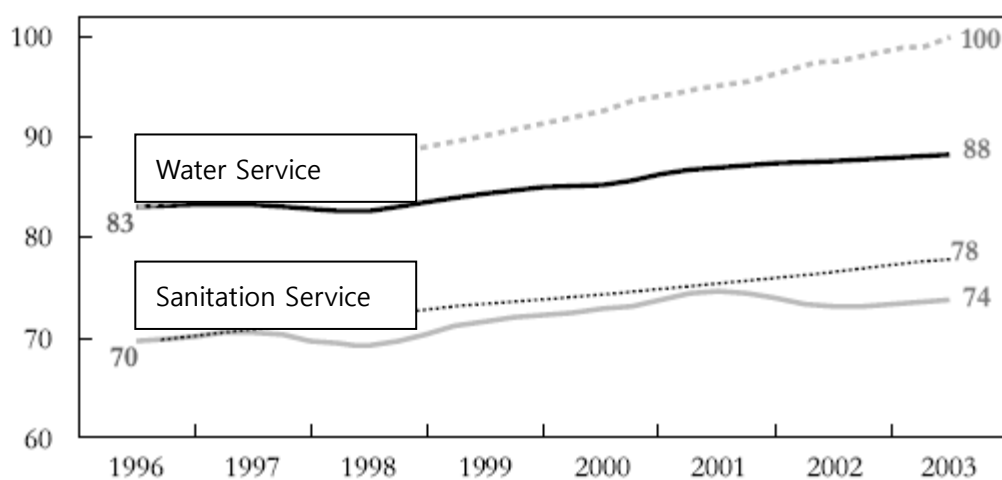
How does corruption take place in fiscal transfers?

Money transfer from central Government: Although the law has recently changed, the money for the WSS transferred by the central government to the municipalities used to come in a fund called "Money for General Purpose" and represented 17% of the total amount transferred. The scheme is that mayors in municipalities find it more politically expedient to divert the resources in projects not related to the WSS, such as sport facilities, festivities or city hall's renovations. Because of this, even though the central government was allocating money for improving the services (especially in low income towns) the citizens were not able to enjoy a better quality on them. Misallocation and embezzlement was constant in many of these towns leading to service's coverage near to 70%. In fact, according to National Planning Department (Silva 2005), "the vast amount of resources assigned to the WSS should

have reflected higher coverage values for the WSS. Additionally the improvement has been focused in the urban population, living worse off the inhabitants of the rural areas”.

The following Figure shows the gap between the actual service in 2003 and that that was supposed to be achieved with the money transferred to the municipalities. This means that the money representing the difference between the projected and real situation has been either misappropriated or used in other non legal practice.

Figure 6. Gap between projected and actual coverage (Silva 2005)



Figure

Support for Specific Projects: The second scheme for fiscal transfers occurs when the national government shifts funds to support a certain project in favor of local politicians. This practice is called “pork-barrel” in which local politicians sell their support to the executive branch sponsoring national government initiatives and as payback they obtain the support for local projects gaining in this way votes for their

reelection campaigns. The problem in this case is that the allocation of those resources is not being efficient and may be other communities with lower political back up that needed more those resources.

F. Managing in Contracting Out

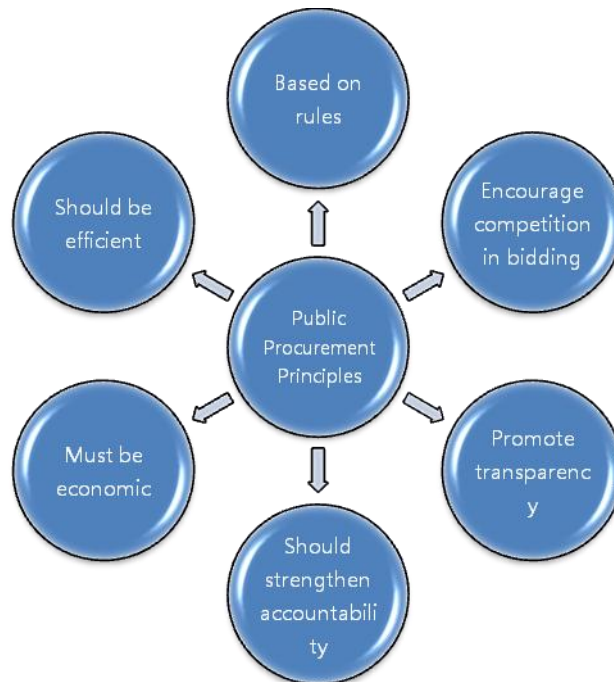
Water and Sanitation sector as any other facility based sector needs to extensively rely on contracting out, not only for the infrastructure projects building but also for the acquisition of goods and services. As it was mentioned before a particularity of this sector is the vast amount of money that it handles and this becomes a reason for corruption perpetrators to focus their attention on it. This category can be responsible for the highest money leakage, where the big money disappears; bid rigging and kick backs are common practices leading to over pricing the real value of the contracts and stuffing the corrupt people pockets. Therefore, these activities should have more attention and control in order to prevent corruption.

1. Tendering and Procurement

To be effective, public procurement must be responsive to the demands of the public and the government. A country's public procurement system must provide the required inputs to the deliverance of public services at low cost and with appropriate levels of quality. To achieve this objective, most public procurement systems attempt to emulate the operation of the market, primarily by requiring competitive tendering procedures for major). A truly competitive process enables the country to effectively use public funds or developing infrastructure, promoting human capital, reducing poverty, and enhancing economic growth. In order to have an effective public

procurement system Ware (2007) gives us the key principles that should govern the process:

Figure 7. Public Procurement Principles (Adapted from Ware et al 2007)



If we were to assure that such principles are followed by the water company, we will have transparent and efficient tendering that will lead to fairer prices in the service delivered to the community. Unfortunately, the WS sector in Colombia does not follow strictly the safeguards described here. There can be identified structural problems on the laws and the regulation itself that allow the contractors to take advantage of the system; they know better than even the agencies the ways to win the tendering and obtain a higher surplus once that the contract has been signed, going against the interests of the contracting agency or company and therefore being paid by the citizens through the tariff paid by the service. The company's economical

power and their superior juridical and technical knowledge, allow them to obtain illicit benefits without breaking explicitly the laws of the sector. This kind of corruption gets advantage from the weaknesses on the spine of the contracting system, out of which we can tell the following as the most relevant.

Subjectivity in the ground rules: Ideally the terms of reference should be general and impersonal; however the document *Riesgos de corrupción en la administración pública* (Contraloría General del República 2007) recognizes as a major risk in the sector the tailoring of the terms of reference or their modification during the bidding process in order to give competitive advantage to a specific bidder. It means that it is possible to have flawless terms of reference that will go in favor of a certain bidder which would make other possible competitors to give up on their intentions of participating in the bidding process.

According to the survey made by Programa Probidad (Transparencia Colombia 2010) one third of the businessmen (not only for the WSS) said that one of the most repeated corrupt practices is the tailoring of the terms of reference, and 23% pinpoints the influence on their elaboration. The subjectivity in the ground rules ends up making the tendering procedures distrustable. That is how 7 out of 10 businessmen, said in the mentioned survey, that they desisted in their intentions of bidding in public tendering, even though they had the chance of doing it.

It is also possible to change the ground rules during the execution of the contract, through the modifications of the conditions and technical specifications established in the terms of reference, particularly in those aspects that defined the eligibility order. Additionally, the lack of strictness in the authorization for the modification of duration

and price of certain items, may lead the bidders to submit proposals that they know will not be able to honor, with the aim of winning the tendering and afterwards requesting the changes during the execution, harming the fair bidders and always ending up with a higher price for the contracting agency or company.

Lack of qualification in the public human capital: According to Gomez Pinzon Abogados (2007), public servants working in the bidding areas are perceived as poorly qualified and with limited knowledge of the applicable laws. Therefore this information asymmetry between the contractor and the agency will end up in less favorable conditions for the state and its enterprises (SOE), levying the burden on the state and opening the door for committing corrupt acts. In the specific case of the WSS, contractors can get advantage of the low qualification of the public servants during the auditing that these servants do while building the infrastructure project. As an example we can have experienced engineers in a specific field, having technical discussions with not so experienced ones from the public company, ending up with more favorable conditions for the contractor.

Lack of incentives to enhance transparency on the bidders: In the surveys related to corruption perception, it is clear that representatives from the private sector know or have known, corrupt practices in bidding processes, which leads to a number of potential bidders to step away from the tendering done by the public sector (Transparencia Colombia 2010). Acknowledging the problem is definitely an important step, but there are no incentives to make people report such kind of misbehaviors that delegitimize the processes. Additionally it would be beneficial to

give some motivational bonuses (for example in the tendering process) to those companies that have implemented ethics codes or counter-corruption programs, which would make more private companies behaving in an honest way. On the other side the punishment for those companies that incur in corrupted actions should be much harder, forbidding them to contract with the state during certain period and having enough advertising of such companies, which at the same time would help in maintaining the perception that the state is not indifferent to corruption.

Weak control in the bidding process: The duty of the auditing agencies has been evaluated in the corruption perception surveys, as poorly effective in preventing corruption; being more interested in the form than in the matter (Gomez Pinzon Abogados 2007). These kinds of indexes tell that it is necessary to take a look at the performance of the Attorney General's Office and Public Prosecutor's Office in light of the surveillance and control they are doing on the contractors in charge of building the WSS infrastructure projects. The point is that common sense tells that if a contractor commits a corrupt act, it would hardly be punished. Therefore the culture of illegality would keep on increasing and corrupt practices will be done more often. Regarding the control that can be done by the civil society, it should be said that even though the Colombian legislation has enough tools for empowering the civil society for this arenas, the lack of technical and financial capacity of the interest groups and the weak support given by the citizens make such kind of control voiceless in this loud environment.

After identifying in detail the main failures of the infrastructure contracting system, we can attempt to identify different corrupt practices that take advantage of the

mentioned weaknesses.

How does corruption take place in tendering and procurement?

Kickback Facilitator: Kickbacks in large public procurement projects are typically negotiated by someone with good connections inside the contracting agency; this kind of agent assists the bidder to obtain the bidding documents, submit the required financial and technical bid, and attends all meetings relating to the tendering. However these agents can also play the role of kickback negotiator. In corrupt transactions, the agent is compensated for “capturing” the contracting agency for the foreign bidder by exerting influence on the local public officials, including by arranging and paying kickbacks to them. Usually success fee is given to the agent to make him been more interested in winning the contract for the represented company. The ability of the contracting agency to detect these illicit transactions can be reduced by the fact that the agent shares his part as a bribe with the public servant. In fact, the agent is a legalized link in between the bidder and the corrupt servant. Even though, the bidding company does not explicit authorize such kind of misbehavior to the agent, does not ban it either.

Fraudulent Concession Bidding: In large cities where the water supply duty is delegated to private operators, opportunities for fraud can be created by the way the contracts are arranged. The private company can get advantage of the concession through an unfair negotiation with the public agency in charge getting extra benefits from the area and bundle of services, their duration and conditions, the initial

capacity can be underestimated, the public assets undervalued, the level and process of tariff setting, manipulated, and the targets and subsidies for serving the poor determined through public-private deals.

Bid rigging: This corrupted practice occurs when public tender that is supposed to be competitive and fair, is manipulated in such a way that a preselected bidder wins the tender. This manipulation takes place among some or all of the bidders participating in the tender with or without the knowledge of the public officials responsible for conducting the tender, at other times, by coercing some or all of the bidders to participate in the bid-rigging scheme (Ware et al 2007).

Bid withdrawing: One or more potential bidders decide not to bid or are coerced by another bidder or a public official. Then a pre-designated bidder wins the tendering. In return, the competitors that decided not to participate in the bidding receive a payoff from the winning bidder.

Tailor Designs: The project may, as a result of a bribe, be designed in a manner which improperly favors one bidder over the others. For example, a certain technology which is only possessed by one of the bidders may be specified, even though other technologies may be preferable or cheaper. This would normally result in the contractors who do not possess the specified technology being kept off the pre-qualification list, or being rejected as non-compliant at tender stage.

Artificially Low Proposals: In this case, a pre-designated bidder submits, in compliance with the agency, the lowest bid understanding that once awarded, the contract will be amended and the prices will be increased in such a way that the contractor will inflate his profit margin. A similar practice is the abuse of the “change orders” process. In such instances, the winner presents an artificially low proposal taking into account that he will make up for the low bid by submitting change orders to the contract that change the contract price.

Insufficient Bidding Time and Advertisement: In occasions when the agency wants to benefit a specific bidder, sets short bidding periods and does not advertise properly the tendering. In this way the agency’s bidder who already knew the terms of reference is the only one able to complete the tendering within the given time.

Fill up Bidding: Some of the bidders present proposals that do not accomplish the requirements of the contracting agency, which makes them lose the tendering. In other cases they offer a price extremely high that makes the contracting reject the proposal. However the losing bidders have a previous agreement with the winning bidder who compensates the actions of the filling up bidders in participating in the apparently multi-bidders tendering. These kind of biddings are designed to give the appearance of real competition in a public tender but since the winner is already pre-established the prices charge to the public agency are much higher than those that would be presented in a competitive tendering.

Barriers for bidding: Any potential bidder who wants to win a tendering must incur in some expenses related to the preparation of the offer. However, in some cases the contracting agency makes this investment extremely high and therefore only those bidders that have certainty about winning the contract incur in this money and time expenditure. As examples we have tendering fees, charge as the price of the terms of reference, which are highly expensive or proposals that include the preparation of draft designs and field investigations that unless the bidder has the certainty that is going to win the tendering, the company would not incur in those huge expenses. The purpose of such practice is to deter the participation of other potential bidders and in this way the one that has an agreement with the public servants is the only one that is willing to expend this amount of money and therefore wins the tendering.

Bidding Carrousel: With a relatively small number of potential bidders, given by the specificity of the project or high bidder requirements given by the agency to shrink the group on purpose, the bidders submit bids, but by agreement they take turns being the low bidder on a series of related contracts. Again the winner has the opportunity of charging higher prices to the agency due to the lack of real competition.

2 Construction

When construction begins, there is another way of generating illegal profits. The profits are generated through change orders, variation orders, or amendments, all of which do invariably increase the contract price, give better conditions for the contractor. These kinds of variations to the initial terms of reference are changes that

are agreed between the contractor and the contracting agency but can be used to cover substantial additional quantities or unnecessary services that would be billed but not delivered. This approach may be used to enrich a different set of people from those involved in the original award.

Supervisors are another point of vulnerability. Certification by quality assurance inspectors, either during implementation or once a work is completed, may be used to extract rent from the contractor. On the one hand, materials or quality that does not comply with the specifications may be permitted with the complicity of officials, who provide such latitude for a price. Field or laboratory test results may be made to reflect compliance with specifications even when they failed or the tests were not conducted.

How does corruption take place while in construction?

According to Transparency International (Stansbury 2005) any infrastructure project during its construction phase is vulnerable to have the following corrupt practices:

“A contractor may pay a bribe to the Owner’s representative in return for the owner issuing a variation which materially increases the contractor’s scope of work.

A contractor may win a contract tender as the lowest priced bidder without including a bribe in the contract price, but agree secretly with the owner’s representative that a large variation including a bribe will be agreed at a later stage..

A contractor may pay a bribe to the architect/engineer in return for the architect/engineer issuing a payment certificate or an extension of time to the contractor.

A contractor may pay a bribe to the owner's quantity surveyor in return for the quantity surveyor approving the contractor's work schedules and time sheets.

A contractor may pay a bribe to the owner's works inspector in return for him approving defective or non-existent work.

An owner may pay a bribe to the architect/engineer in return for the architect/engineer refraining from issuing a payment certificate or an extension of time to the contractor, or for issuing a certificate entitling the deduction of liquidated damages from the contractor.

A contractor may submit a claim for payment for a variation to the owner, when the contractor knows that, or is reckless as to whether, the amount claimed is greater than the amount allowed to the contractor under the contract or by law.

A contractor may make a claim against the owner for an extension of time based on an alleged cause for which the owner is responsible, when the contractor knows that, or is reckless as to whether, the actual delay was due to a cause for which the contractor is responsible

A contractor may submit a loss and expense claim to the Owner based on an allegation that the Owner is responsible for a particular event, while concealing from the Owner records which would prejudice the contractor's claim (e.g. letters from the contractor to a sub-contractor which attribute blame for the claimed event to the sub-contractor rather than to the Owner).

A contractor may make a claim against the Owner for an extension of time, when the contractor knows that, or is reckless as to whether, the claim is for a period greater than the actual delay caused to the contractor by the event on which the claim is based.

A contractor may submit falsified records to support a claim (e.g. false programmes, invoices, timesheets etc.) whether or not the claim itself is genuine.

Such kind of practice is common to all sectors and is prone to occur in every country, and the studied case is not the exception”

G. Day to Day Management

The last category of corruption identified for the water and sanitation sector is the one related to operation of the companies in charge of delivering the service. Some of these practices are related to the internal management of the company, that even though it happens within the company, the users of the services are the ones that pay for those inefficiencies derived from this mismanagement. Also, belongs to this category what is called as petit corruption which is that one perpetrated by the staff in the bottom of the company’s pyramid, and affects directly the user’s pocket; even though it does not necessary represents an important amount is the one that touches more directly the customers.

1. *Water Companies Management*

Whether the company in charge of delivering the water and sanitation services is public or private, these companies have the privilege of being the monopolistic supplier for their geographical region and even though they are regulated they don’t have a perfectly clear incentive of being efficient and transparent. Therefore, if the company is public they may have some political incentives and if it is private their aim will be profit maximization. In both cases it can be seen the abuse of the power

for private gain. Let's explore possible scenarios for corruption in the mentioned cases

How does corruption take place in day to day management?

Public Companies: Personal management handling can be blurred; starting from the staff hiring, usually is made without any contest and with low requisites, trying to give preferentiality to politicians and making these kinds of companies, bureaucratic quota for the ruling party. Not only the managerial positions are hired in this way but also the middlemen; therefore the staff may have their own agenda fulfilling the interests of their "sponsor" that in most of the cases are not aligned with the interests of the public, which is the perfect environment for the corruption to take place in all the different ways that have been mentioned in this document.

The same happens to promotions, transfers and salary perks in order to get any improvement in the job a certain person must have the approval or protection of a political support. What is known as having someone to pull the strings, otherwise it's going to be difficult for a worker to achieve better positions even though he or she is an outstanding professional. This practice makes the company much slower, where people don't try to work better every day and since compensation comes from the people you know and not for the work you do, the inefficiencies arise rapidly. Other particularities of these companies is that usually these organizations have excessive benefit packages and are overstaffed, as a consequence of continuous creation of more positions to receive the recommended people. Since this and other inefficiencies are expensive, the company has two options one is raising the price of

the tariff charged to the users and the other is undercutting the investments, both of them affecting in a higher way the poorer part of the population.

Private Companies: In this case the companies are worried about the efficiency of the business therefore they try to have the best qualified personnel the perfect size for the company and there is someone that carries the responsibility of higher costs in the production of the service, which will become a lower margin for the owner of the company. However, what can happen in this case is that the company inflates the real incurred cost in order to obtain higher tariff permission from the regulator; then the company can over value their assets, invest in unnecessary projects, report higher operational costs and many other practices in order to take advantage of the information asymmetry and cheat the regulator. At the end, the company ends up being paid for more of what the company has really spent.

2. Daily Operation

The particularity of corruption in this link of the value chain is that it takes place within the interaction between the users of the WSS and the company employees and usually involve a little amount of money but are done frequently and systemically (they may be either extortive or collaborative)

How does corruption take place during daily operation?

Common corrupt practices in the service deliverance, operations and maintenance of water services, include officials providing illegal connections, with

are associated to periodic fees to not cut the water supply or even worse not whistle the action to the supervising authority. Also it is common to find company employees selling water to private water vehicles for resale in further zones. Offering preferential treatment for repairs and using the company's machinery for private gain are also among the activities done by corrupted employees and public officers.

Other corrupt practices during the operation are those related to fraud in payment systems such as falsifying meter reading, irregular billing, or avoiding officials over-charging (Davis, 2003). Typically where poor consumers are involved, the bribe is demanded rather than offered.

3. Payment

The corruption in this last step of the water and sanitation value chain is mostly related to the fraud on the payment and/or billing of the service, considering that this service is charged by the amount demanded. In the misbehavior, a particular customer uses different tricks to pay less than he or she is supposed to, or even worse doesn't pay anything at all. This practice is done in between a corrupted official or company's employee and the general public.

How does corruption take place on the payment related issues?

As explained the amount that has to be paid but the consumers comes from the per cubic meter fee, that is imposed by the regulator, and the number of cubic meters consumed. Then the fraud comes when the user by its own means or with the complicity of the company's employee, alters the meter reader in such a way that

this measures less volume than the real. Also there are some cases where commercial users have to connections intakes; the first one is completely legal with a meter that works properly and the other one is a fraudulent connection to the main pipeline that steals the water from the company. Other related fraudulent practice is given when the company's employee, on purpose misreads the meter reporting a lower volume of water consumed and therefore a lower bill for the consumer.

VII. Summary and Conclusion

No doubt, water and sanitation services are a starting point for reducing poverty, and if we are to foster development in those countries of the global south, we should assure their effective delivery process. However, despite the efforts made by governments and international organizations to reduce poverty by helping those who do not have access to these essential services, the situation is alarming; we are still talking about billions of people that don't have the opportunity to enjoy the most basic services and therefore they are in hunger and illness, they don't have a chance to be educated, women have every day fewer opportunities, child mortality keeps on increasing as maternal health is not improving either. This phenomenon seems to be, more complicated than the lack of resources, which by itself is important enough; it seems to be a matter of use and abuse of the power given to individuals for satisfying their own interests.

The Colombian case is not different to the situation previously explained. Even though Colombia is a country with immeasurable needs and with limited resources it has made a heroic effort to bring the water and sanitation services to the population, especially those in poorer conditions. But regardless of the investment level and the commitment of some of its governors, the actual scenario is not so encouraging. Understanding the relevance of this issue, money has been constantly allocated to improve the quality of these services but no matter how much money is allocated to

the sector, the actual amount of money distributed at the end of the pipelines are minuscule and they dissipate in the long chain of the administrative and management process.

In this study I have described the complexity of the water and sanitation sector, its particularities in Colombia and the variety and creativity of human beings for committing corrupt actions. I have shown that corruption takes place in every step of the collusive chain, where larger parts are taken in specific parts, but none of the activities in the water and sanitation sector is immune to this illness, as corruption was compared to in this paper.

In my view, the resolution of this entrenched corrupt system lies squarely in top leadership. The policy makers may need to establish a Czar who is given authority to investigate every step in the corruption chain as I have described and stream line the regulatory and enforcement armed with sanctions and rewards. Enough resources are needed to assure that this office is going to be strong enough to detect corrupt actions and therefore will make people think twice before getting involved in this misbehavior. Additionally the civil society should be involved in the whole process, but again the government cooperation and willingness to empower citizens is indispensable, starting with information disclosure, letting the people know what is needed to do, how is it going to be done and how much will be spent on it, passing through the people qualification to make sure that they can understand the regulations that all stakeholders involved in the value chain should follow and finally giving them the tools to make their control duty.

A strong work with civil servants, at all levels, is required in order to control this source of corruption. First they should receive ethical qualifications through workshops in order to make them understand the damage it can cause on the society. Through these kinds of activities civil servants are going to start judging corruption as perverse practice and the ethical environment of the organization is going to experience a change; unless everyone agrees that corruption should be abolished, this misbehavior will be in the organization forever. Another action required, is to align the interest of the civil servants with those of the organization, then it is necessary to implement rewards/penalties scheme for everyone in the organization; these should be especially targeted to eradicate corruption and incentive transparency during the activities required to deliver the water and sanitation services.

The establishment of systems -as quality assurances programs- and processes is indispensable to avoid corruption; diminishing the discretionary power of middlemen and shutting down all the opportunities that may act as temptation for public servants to commit these actions.

Finally it is necessary that policy makers understand the structure of corruption and identify where the resources are leaking and the way it is happening. In order to control this negative practice, policy makers must identify the locus of corruption in the political economy of water and sanitation and scrutinize how the budgetary resources are dissipating through the corrupt chain. This understanding added to a

titanic commitment for controlling corruption, punishing the corrupt ones and enlightening the people in charge of decision making would be a way to start containing the corruption in the water and sanitation sector.

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