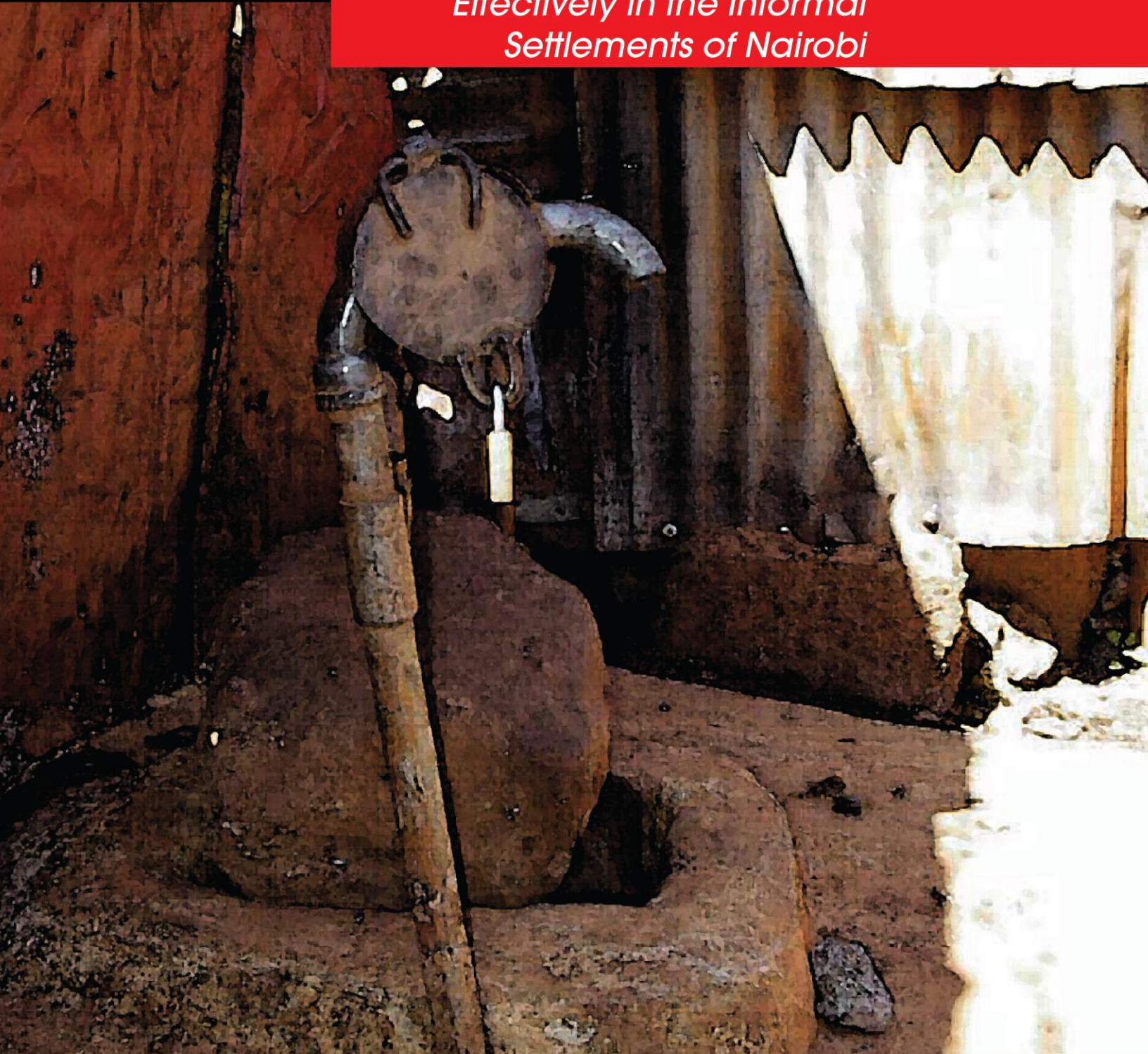


2008

# The Triangle Of Mistrust:

*A Utility's Struggle to Engage Effectively in the Informal Settlements of Nairobi*



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## Abstract

*“Water is life”. During the past decade this phrase has been used repeatedly to emphasize the importance of a number of issues surrounding water services provision including, supply, distribution, governance and political will. This research seeks to investigate the Nairobi City Water and Sewerage Company (NCWSC), a water utility in Kenya, which faces the monumental task of providing water and sanitation services to some of Sub-Saharan Africa’s, biggest and most densely populated informal settlements (slums). The research focuses on the tumultuous relationship between **the utility, small scale independent providers (SSIP’s) and the community living and operating in the informal settlements of Nairobi** and further examines how the utility has tried to improve that relationship since the national water reforms of 2002. Through the utilization of a number of qualitative methods, and close examination of the interactions between the three previously mentioned parties, a concept called the “Triangle of Mistrust” was coined. The research contends that it is the utility’s responsibility to bridge the Triangle of Mistrust, and only through partnership and cooperation within the Triangle, can the utility’s engagements in the informal settlements be successful.*

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## List of Abbreviations

**AWSB**- Athi Water Service Board

**CBO**- Community Based Organization

**KIWASCO**- Kisumu Water and Sewerage Company

**KSh**- Kenya Shillings

**MDG's**- Millennium Development Goals

**MWI**- Ministry of Water and Irrigation, Kenya

**NCC**- Nairobi City Council

**NCWSC**- Nairobi City Water and Sewerage Company

**NGO**- Non Governmental Organization

**NIE**- New Institutionalism

**SSIP's**- Small Scale Independent Providers

**WSB**- Water Service Board

**WSRB**- Water Service Regulatory Board

**WSP**- Water Service Provider

**WSP-AF**- Water and Sanitation Program- Africa

**UFW**- Unaccounted for Water



*“What is happening now is a fantastic opportunity. It’s an opportunity we can take advantage of to work on the ground. It’s not something that will happen in meetings and boardrooms. It requires going to the ground and dealing with the politics. It is an issue of management and distribution of resources, so dealing with the politics of water, from the ground to community level to higher. As communities get more organized, the demands on the water company will change. We will see the community having a more equal relationship, and the company as well as Athi water will need to be able to deal with the growing political awareness of the slum dwellers. We are training the company in a sense, in a very indirect way because we train them in their way of thinking and dealing with the community.”*

Jane Weru- Executive Director- Pamoja Trust<sup>1</sup>.  
Recorded interview, January 7, 2008.

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<sup>1</sup> Pamoja Trust is an African NGO which focuses on water and sanitation issues specific to communities living in informal settlements (slum areas).



# 1. Introduction

Nairobi, the capital city of Kenya, is home to the largest informal settlements (slums) in Sub Saharan Africa. Informal settlements such as Kibera, Mathare and Mukuru are home to approximately 600,000, 350,000 and 300,000 residents respectively (Athi Water Service Board, 2007:14) (see figure 1). While official statistics are unavailable, it is generally agreed that approximately 60 percent of Nairobi's 3 million residents live in the city's 200 informal settlements (UN-HABITAT, 2007:7). Due to heavy migration from rural to urban areas, estimates indicate that the number of people living in the informal settlements will double within the next 15 years (ibid).

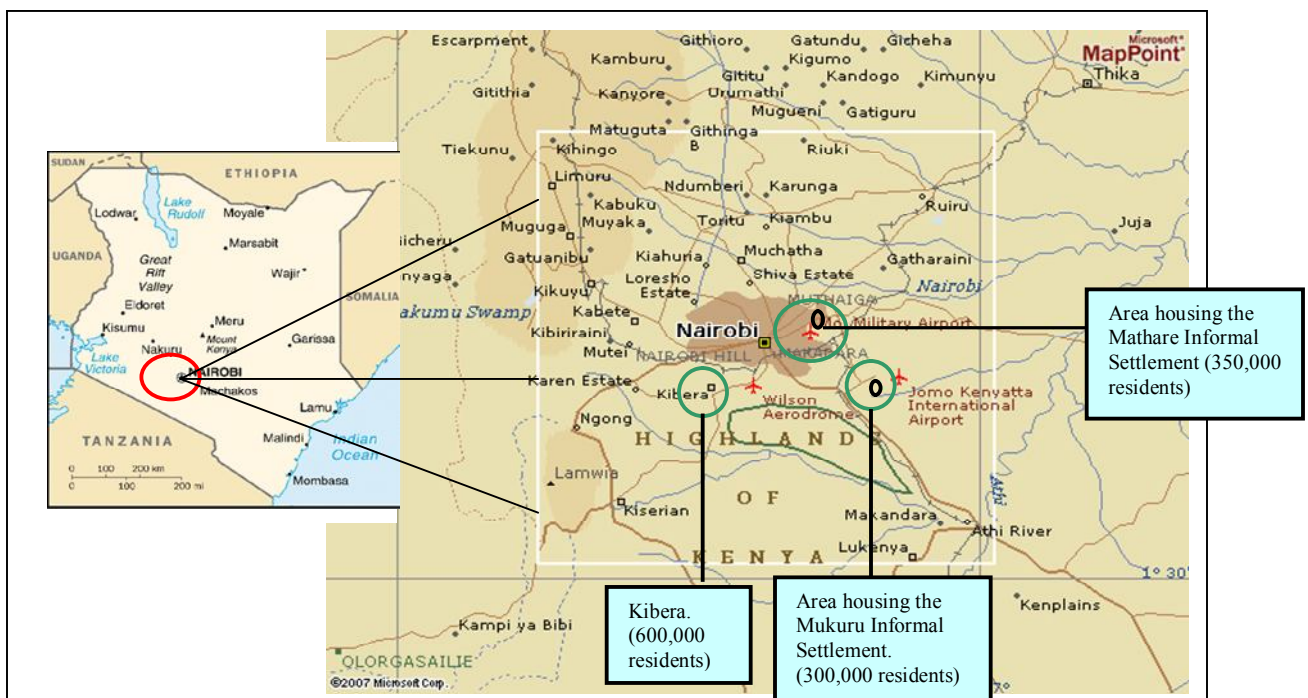


Figure 1: Nairobi and Three of its Largest Informal Settlements<sup>2</sup>

The Nairobi City Water and Sewerage Company, herein after referred to as NCWSC, is responsible for the provision of water and sanitation services to all of Nairobi including the informal settlements. This is a relatively new development, as in the 1980's and 1990's development policies did not include informal settlements. The water sector reforms of 2002 led to the formation of the *Water Act 2002*, which created a more suitable regulatory and institutional environment for water services provision to the rural and urban poor (Ministry of

<sup>2</sup> Maps used from [http://encarta.msn.com/map\\_701514937/Nairobi.html](http://encarta.msn.com/map_701514937/Nairobi.html) and <http://geography.about.com/library/cia/blckenya.html>. Images combined by author of paper.

Water and Irrigation and Water and Sanitation Program-Africa: 2007). While Kenya has embraced the water reforms, one of the most significant challenges it faces will be how to address bottlenecks that hinder better implementation of projects in the future (Africa Development Bank et. al., 2006).

Providing water to unplanned, unstable, densely populated areas like the informal settlements of Nairobi poses a series of problems for the water company. One of the most acute challenges is how the company now approaches the small scale independent providers (SSIP's), who have provided water and sanitation services in the settlements for decades, as well as the communities in the informal settlements, who for a long time have been shunned by the utility. It is important to note that in Nairobi's informal settlements, the most common form of SSIP's are the individual water vendors who operate water kiosks (please see *Appendix C4*). This study refers to such operators and from this point onward, the term "water vendors" will be used to denote this type of provider.

## **1.1 Aim and Purpose of Research**

This research seeks to investigate how NCWSC has engaged in water services provision to the informal settlements since the water reforms of 2002 with emphasis on its interactions with water vendors and the community. The research seeks to prescribe a way forward for the improved engagement of NCWSC within the informal settlements.

Through the field research comprising interviews with officials of NCWSC and key informants, and focus groups discussions with water vendors and communities inclusive of community based organizations (CBO's)<sup>3</sup>, the research questions took shape. This is the same data which will be used to make recommendations on how NCWSC should engage in the informal settlements in the future. In addition, the following should be kept in mind when reading the research questions: *For many decades, the main providers of water in the informal settlements have been individual water vendors who provided water when the utility refused to*

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<sup>3</sup> A CBO is a group which consists of members of the community, who have come together for the purposes of improving the community. CBO's, for example, can be women's groups, youth groups, water and sanitation groups, and so on.

*do so.* They therefore cannot now be bypassed as they represent an important and integral stakeholder in the system.

## **1.2 Research Questions**

The main research questions are:

- 1. What is the relationship between NCWSC, water vendors operating in the informal settlements and the community in the informal settlements and why is it like this?*
- 2. Since the water reforms of 2002, in what way(s) has NCWSC tried to improve upon water services provision within the informal settlements?*
- 3. How can NCWSC work with water vendors and the community in the informal settlements to improve water services provision?*

## **2. Theoretical Framework**

Through the use of institutionalist development theory, the researcher hopes to test whether the water sector reforms of 2002 represent a workable shift which can help the water sector to achieve improved performance.

### **2.1 Institutional Development Theory**

Institutionalists argue that while the neo-classical approach relies mainly on market forces and the belief that systems will eventually move to equilibrium, this approach assumes isolation from wider social structures that affect economies. Institutionalists therefore take the view that economies are made of intricate and complex social structures and must be analyzed by taking relevant information about sociology, politics, history, culture and so on into account when creating policy (Preston, 1996:200). Institutionalists advocate that the real allocating mechanism is the structure of society which not only organizes markets, but other institutions as well (Ayers in Peet, 1999:58). This research mainly draws upon the work of Douglas C. North, who argues that in order for “Third World countries” to advance, economic, social, political and cultural aspects all have to be taken into account during policy creation.

### 2.1.1 New Institutional Economics (NIE):

New Institutional Economics (NIE) is an emerging body of theory which “offers a set of tools to inform institutional design” (Harriss et. al., 1995:1). Economic development depends upon the existence of a favorable institutional environment. North (1995:24) defines institutions as the “rules of the game”, consisting of both the formal legal rules and the informal social norms that govern individual behavior and structure social interactions. These can also be referred to as institutional frameworks. He further states that organizations, by contrast, are those *groups of people* and the governance arrangements that are created, such as firms, associations and unions (ibid).

With the above definition as a backdrop, this body of research refers to the water sector as the institution, and NCWSC as an organizations. Harriss et. al. (1995:11) further state that given its role in specifying and enforcing formal rules, the nature of the state is bound to play a central role in determining the path of development. North (1995:22) states that since it is the polity that specifies and enforces formal rules, it must play an integral role in policy change. A good example of this is the integral role the government of Kenya played in initiating and developing the water sector reforms of 2002.

North further states that at the heart of development policy must be the creation of polities that will create and enforce efficient property rights (ibid). Neo-classical economics works when there are no transaction costs to interfere with equilibrium. However, with weak institutions come high transaction costs, thus neo-classical thinking does not work. Institutional change which will reduce transaction costs is therefore necessary and can only come from the polity. This rings especially true for NCWSC. When the Nairobi City Council herein after referred to as NCC was in charge of water service provision in Nairobi, transactions costs were extremely high due to high levels of corruption which led to rent seeking behaviours. Change had to come from the polity. This will be discussed further in Chapter 5.

The most recent writings on NIE focus on the inter-dynamics between *institutions and organizations* and it is especially this point that makes the theory relevant for the water sector reforms and NCWSC. However, organizations can be extended to include individual agents, groups, firms, businesses, collective bodies and so on (Harriss et. al., 1995:6). Of extreme

significance to this study is the fact that the relationship between institutions and organizations “implies a greater recognition of cultural-institutional-diversity and the prospect of positive institutional change resulting from a range of individual actions” (ibid). Harriss et. al. (1995) state that further research is needed on the role of the state in setting and policing game rules and the influence of interest groups and organizations in shaping institutions in the “Third World”. This thesis offers such a body of research. NCWSC will be examined as an important organization within the institution and the water vendors and community groups as individuals and interest groups which all impact the institution. Additionally, through the theory it will be examined whether NCWSC really has to take history, culture and special interest into account if policy and future engagement in the informal settlements is to work.

### **3. Research Frontier**

NCWSC came into being because of institutional changes in the form of decentralization. It is therefore important to grasp the workings of the system of decentralization if one is to completely understand the operational modality of NCWSC. This chapter also looks at what has been said generally about SSIP’s and community participation as it relates to water issues.

#### **3.1 Decentralization**

Tiwari (2007:2) suggests that the most important issues of institutional reform have already been agreed upon, inclusive of decentralization of service responsibility to local governments, independent utilities, community driven and demand-responsive approach and the restructuring of water institutions.

Decentralization refers to the strategy whereby responsibility is transferred from central government to local authorities. The World Water Development Report 2 points out that when decentralization is carried out properly, it can lead to increased democratization and “bring decisions closer to water users” (United Nations, 2006:75). Further democratization can be seen in the processes of decision making as more stakeholders are included, leading to more transparency and accountability (ibid, World Bank: 2003).

The World Development Report 2004, describes decentralization as devolving responsibilities to levels of policymakers separate from central government and separating the powers between them in order to “create the right incentives to improve service delivery” (World Bank, 2003:164). It is also made clear that while it is important to separate the policymakers and providers at the local level, there must also be a separation of roles and responsibilities of the different levels of government. The report also states that citizen voice and accountability are strengthened through decentralization as service and political boundaries “coincide” (ibid). Importantly, the point is further made that when central government is in charge of both the regulation and service delivery responsibilities; there is little or no incentive to hold itself accountable. This point holds especially true for Kenya before the water reforms. Accountability, transparency and anti-corruption were almost non-existent when central government was responsible for regulation and services (Ministry of Water and Irrigation, 2007a). However as will be seen in this research, decentralization and the formation of water companies at the local level have taken care of many of these problems to a large extent.

Prasad (2007: iii) warns that regulation should be accompanied by appropriate social policies when reforming the water sector. He makes the observation that in many countries disconnection of water is not allowed as those most likely to be unable to afford to pay regular water bills are the poor. He concludes that “the political economy of water is such that any benevolent reform can lead to an impasse if social policies are neglected” (Prasad, 2007: 21). As will be seen later on in this study, NCWSC embarked upon a program of mass disconnections that caused outrage across the nation. Thus, while decentralization was working to some extent, the social program was performing dismally.

The wide cross section of countries studied in Prasad’s report demonstrated that any reform intended to increase coverage “either through commercialization, PSP<sup>4</sup>, additional investment or increasing efficiency should be accompanied by appropriate social policies” (ibid). Such a conclusion is especially important for this research as it also aims to look at whether social policies are necessary in institutional design.

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<sup>4</sup> PSP- Private Sector Participation

### **3.2 Small Scale Independent Providers**

More than 75 percent of the urban poor get water from small scale independent providers including vendors, water truckers and network providers (Collignon and Vezina, 2000:1). These providers embark on service provision when national systems refuse to become involved or simply turn a blind eye to the poor. The point of contention however, is the way in which SSIP's are regarded. Are they opportunistic businessmen who have taken advantage of the poor's inability to access these important services, or are they people who selflessly engage in an unprofitable endeavour for the purposes of serving their fellowmen? The reality lies somewhere between these two extremes.

A ten country study of independent water and sanitation providers in Africa makes a strong case for SSIP's (Collignon and Vezina, 2000). The study claims that while SSIP's are often criticized for charging exorbitant prices for water and sanitation services and making high profits at the expense of the poor, the surveys carried out for the study found no evidence to support that opinion. However, this research looks at the situation in Nairobi where water cartels and an organized system of intimidation have kept prices high, way above national averages and the poor have been severely taken advantage of by unscrupulous vendors in not all, but many communities.

The ten country report further states that the quality of water provided by independent providers is "practically the same as that of water from the mains" (Collignon and Vezina, 2000:49). However, the same report also admits that water vendors often use cheap plastic pipes that are prone to leakages and breakages. It therefore stands to reason that water accessed from malfunctioning pipes could not be of the same quality as that coming from company mains. This research will show that water sold by vendors in Nairobi is way below acceptable drinking standards.

The study advocates that in order to improve services offered by the SSIP's, there must be "recognition and contractualization" (Collignon and Vezina, 2000:54). Kjellen and McGranahan (2006:19) corroborate this view. This means that public authorities need to officially recognize SSIP's and formalize them through licensing and performance agreements. The World Development Report 2004 further supports this view by indicating



that legalizing SSIP's would not only enhance their performance but enable greater partnership between the network providers and the small scale providers (World Bank, 2003:171). This research will show that both water vendors and CBO's are anxiously awaiting formalization procedures to be initiated by NCWSC.

### **3.3 Community**

The World Development Report 2004 advises that improving services to poor people should include engaging them more actively in the service whether as purchasers, monitors, or co-producers. The report further illustrates that in countries as diverse as India and Ghana, communities are becoming more and more involved in the "design and management of their water systems, often paying for operations and maintenance costs" (World Bank, 2003:172).

On the other hand, the ten county report mentioned before takes a negative view of community based arrangements in water services provision. The claim is made that when groups are not successful, the mistakes are very costly and when they are successful, the "heavy burden of sustaining service has driven them to seek some means of remuneration, whether overtly or by creative accounting practices" (Collignon and Vezina, 2000:49). On the other hand, the Water Utility Practice's study of best practices across the African continent appeals that the involvement of users and communities in the "planning and management of services is urgently needed" (Water Utilities Partnership, 2003:13). It further states that utilities often view consumers as "ignorant and apathetic" but in many cases the communities have "proven willing and able to bring about change that responds to the needs they define" (ibid).

This research will show that there are community groups in Nairobi that are successfully managing their own water points and are making enough money to fund new projects, pay salaries and give dividends to members.

## 4. Research Design

The following section highlights the methods which were used to collect data for this study. Methods are explained in detail and the pro and cons of methods are presented.

### 4.1 Single Case Study

Stake in Hammersley and Gomm (2000:20), explains that research should be done not to increase the already existing multitude of research studies, but to further understanding. This body of research hopes to build upon the already existing knowledge of water vendors and their important role in serving the informal settlements. The aspect being introduced is how the utility can use its influence to help the water vendors *and* community groups to work together constructively in order to bring about improved access to water services provision in the informal settlements.

The research keeps the focus of one case study with the following justifications:

1. **Need for Research dedicated to NCWSC:** NCWSC is a very young company which has the monumental task of serving the informal settlements of Nairobi. Officials of the company have expressed that they sometimes feel lost when it comes to Nairobi's sprawling informal settlements. This research should help the utility to strengthen further engagements with water vendors and the community and hopefully serve as a model for other utilities in the region which need to improve water services provision in the informal settlements in their jurisdictions.
2. **Similarities between utilities across the region.** Informal settlements across the African continent house between 40 percent and 70 percent of the urban population (Water Utilities Partnership, 2003:9). While most utilities in Africa have tried to provide basic services like free water through standpipes to these low income settlements, these services are usually "unreliable, inaccessible and/or oversubscribed" (ibid). Because of this, people living in informal settlements often have to pay a higher price for water, purchased from water vendors or private water kiosks. Thus, it

becomes clear that utilities across the region face similar problems as those experienced by NCWSC and all utilities can therefore learn from each other.

## **4.2 Qualitative Methods**

This research initially began as an investigation into NCWSC and its relationship with its most important partners. As the investigation progressed, the problematic partnership with water vendors was mentioned by all persons interviewed. Thus, the scope of the research began to narrow. Further investigation introduced the concept of CBO's and a new angle was brought into the scope of the study. New interviews and focus groups discussions had to be arranged and interview guides amended to include the additional focus. This is the nature of the qualitative investigation as the researcher uses methods which leave him/her open to the influences of that which is being studied (Bryman, 2004:280). This allows for flexibility as the researcher is able to change focus during the investigation with relative ease (ibid).

Qualitative research stresses the social construction of an issue being examined whereby words and emotions are emphasized, whereas quantitative research stresses the measurement and analysis of the relationship between variables (Denizen and Lincoln in Silverman, 2005:10; Kvale, 1996:69). The author considered both qualitative and quantitative methods when designing the research, but chose qualitative methods as they allowed for closeness to the subjects that quantitative methods would not. Qualitative tools allow subjects to give their personal point of view and allow them to interpret their social situations from their own perspective and with their own words, thus making for the researcher's deeper understanding of the situation (Kvale, 1996:70; Silverman 2005:9,10). This was especially important in this investigation as the examination of relationships using qualitative methods allowed subjects to speak freely and offer insights that would not have been possible with quantitative methods.

Bryman (2004:23) advises that when the nature of the topic involves illicit activities such as violence, or pilferage, it is important that the researcher gain the confidence of the subjects and qualitative methods work best for this. The relationship with the water vendors, community and NCWSC often contained sensitive and unpleasant information and it required good rapport to get subjects to share their stories.

However, qualitative methods are not without negative sides. Here, arguments that are pertinent to this body of work are presented.

*Lack of objectivity:* Bryman (2004: 284), Kvale (1996:84), and Silverman (2005:119) warn that because the qualitative researcher gets close to his/her subjects, objectivity sometimes tends to disappear. Closeness to the subjects sometimes leads to feelings of empathy which may impair the objectivity of the findings and cause researchers to adopt the views of those being studied. Blecker in Bryman (2004:22) has stated that sociologists tend to develop sympathy for the “underdog group.” Bryman (2004:22) and Silverman (2005:119) advise that the researcher be highly self-reflective about the influences of subjectivity and biases on his/her research and find ways of countering such influences. When writing about the differing groups, this researcher was careful to present views as they were told, and to exclude opinions or judgments when reporting findings.

*Descriptive detail:* The nature of qualitative research means that descriptions are necessary for explaining why situations have come to be the way they are. Lofland and Lofland in Bryman (2004:280) warn against “descriptive excess” in qualitative research where the volume of detail impairs the data analysis. However, Bryman advises that qualitative researchers are not “exclusively” partial to description, but that said descriptions help them to answer the “why” of the research questions (ibid). This is especially true for this researcher as a concept called the “Triangle of Mistrust” is introduced later in the study. In order for the “Triangle” to be understood, descriptions of relationships and events are explained in detail. However, the researcher ensured that each description was necessary and that it added another dimension to the understanding of the Triangle.

*Lack of Transparency:* Bryman (2004:284) suggests that in qualitative research, it is sometimes difficult to establish what the researcher actually did, how conclusions were reached, how people were chosen for interviews, how data was analyzed and how analysis was conducted. This researcher has attempted to be very clear about the number of people interviewed, how respondents were chosen and how conclusions were drawn. The processes are outlined through each stage of the study and attention has been placed on ensuring a transparent body of work.

### **4.2.1 Field Visits**

Early field visits to the informal settlements of Mukuru, Mathare and Kibera, Nairobi's largest informal settlements, were extremely important in defining this research. Field visits helped the researcher to develop an overall picture of the situation in the informal settlements not only in terms of assessing water and sanitation issues but general humanitarian issues as well. Visits to smaller settlements including Dondora, Kawangware and Kiambiu also helped the researcher to conceptualize that different informal settlements faced very different issues. Descriptive field notes were taken on most visits, inclusive of information gleaned from people encountered in the field, and were important in gaining the perspectives of various stakeholders (Bryman, 2004:308; Mikkelsen, 2000; Mugenda and Mugenda, 2003).

### **4.2.2 Micro-Ethnography**

Micro-ethnography involves "participant observation" where the researcher is immersed in the field from a few weeks to a few months, and focuses on one aspect of a topic (Bryman, 2004:292). This researcher spent four and a half months in the field and focused on NCWSC's involvement in the informal settlements. Thus this aspect of the research is being defined under the term "micro-ethnography".

This study revolves around NCWSC and access to the company was smoothly procured as the researcher was an intern with one of NCWSC's main partners, the World Bank Water and Sanitation Program, Africa (WSP-AF). Access was gained to both the company, a closed non-public setting and to the open/public setting of the informal settlements (Bryman 2004:294). With NCWSC the researcher's role was "participant-as-observer" where the researcher was fully involved in the activities of the water company with the full knowledge of all involved that research was being carried out on water issues in the informal settlements (Bryman, 2004:301). The researcher accompanied sociologists of NCWSC into the informal settlements and participated in workshops with NGO's, community meetings with people residing in the settlements, meetings with both satisfied and disgruntled water vendors and focus group discussions with community members and members of vendor associations. In a few cases, the researcher preferred the role of "researcher-participant" where there was only partial involvement in activities, allowing more time for note taking and observation (ibid).

Early on in the data collection process, this method helped the researcher to gauge the feeling that communities in the informal settlements had toward NCWSC as the interactions between the groups involved could be closely observed (Gerson and Horowitz in May, 2003:212).

#### **4.2.3 Key Informant Interviews**

During the first few months of work at WSP-AF, the opportunity was used to conduct several semi-structured interviews with key informants. These interviews were designed to find out what the major challenges and successes in the water and sanitation field had been in Kenya to date and what impact if any, the water sector reforms of 2002 had had in Kenya thus far. The interview guide was structured around a few themes, but interviewees were allowed to speak freely with few interruptions.

After defining the research questions, a proper interview guide was developed by channeling the research questions into interview questions (Kvale, 1994:131) (see appendix A1). Kvale's 7 stages of the interview process were very instrumental in how thematizing and designing the interviews was approached (*see Appendix B*). A total of nine interviews were conducted with key informants.

#### **4.2.4 In-Depth and Semi-Structured Interviews with officials of NCWSC**

For these interviews, questions were formulated around various themes (*See appendix A2*). An interview guide was designed but each interview followed a different course, depending on the responses of the interviewees. The researcher was flexible in her approach to the interviews, allowing respondents to discuss issues that they found relevant (Bryman, 2004:326; Mason in May, 2003:225, Willis in Desai and Potter, 2006:147). The interview guide was occasionally consulted to ensure that all important issues were being covered. The interviewees were very open and forthcoming in their answers, readily admitting the weaknesses in NCWSC's work in the informal settlements.

#### **4.2.5 Focus Group Discussions**

Focus group discussions generally lasted approximately two hours. The first half of the discussion dealt with general questions about the past and present state of water services provision in the particular informal settlement and the interaction between the utility, water vendors and community (*see Appendices A3 and A4*). By listening to the topics and concerns that came up during the first half of the discussion, two questions were developed which the

groups were invited to discuss during the second half of the discussion, when the groups were split into two. They were then invited to formulate concrete and workable solutions to problems posed in the two discussion questions. The answers from the various groups have been combined to inform the recommendations which are presented in this paper.

During the discussions, the researcher's role was to facilitate and moderate. Thus, attendees determined the direction of the discussions for the most part (Bryman, 2004:346). One downside to this however, is the researcher usually had a person from the community doing translations from Kiswahili to English and when the discussions sometimes became intense or interesting, s/he would forget to translate. In such cases, the researcher would gently interrupt the group and ask for a translation.

### **4.3 Sampling**

Qualitative research does not make use of a wide range of sampling procedures (Silverman, 2005:127). However, for the purposes of transparency, this section seeks to explain how groups and interviewees were chosen. For this research, purposive sampling was used, whereby the researcher carefully chose individuals and groups which would best fit the aim of the study (ibid, Bryman, 2004:333).

For the focus group discussions, nine groups were carefully selected and conducted. One group consisted of the top management of Kibera's vendor association, Maji Bora Kibera (MBK) which represents over 300 water vendors operating in the 12 villages of Kibera. Another discussion was held with a group of 13 water vendors in Mathare who had been severely affected by the mass disconnections carried out in the informal settlements. Four groups consisted of both water vendors and CBO's from various informal settlements and took place in conjunction with NGO's working in the field of water and sanitation. At these discussions, attendees sometimes reached 40 in number. Three discussions with CBO alliances were held in various informal settlements, with attendees sometimes reaching 20 in number. One discussion was held with the management board of a CBO called Kiambiu Safi Group which is successfully running numerous water points and sanitation blocks in one of the smaller informal settlements of Nairobi. These groups were chosen because they represented a good mix of both CBO's and vendors operating in both large and small informal settlements



and the groups themselves were representative of their entire settlement. This made the researcher confident that information being collected was both accurate and generalizable.

Key informants were eight in number and included persons from NGO's, WSP-AF, and Athi Water Service Board. 10 persons from NCWSC were interviewed inclusive of high and mid level staff. All interviewees were chosen depending on their area of expertise and what they could contribute to the research questions.

#### **4.4 Transcribing and Data Analysis**

Early in the research process, interviews were recorded by hand. However, after proper interview guides were designed (*see appendix A*) and the research questions fully developed, a digital recorder was used to record all interviews and focus group discussions. Some interviews were transcribed within a few days, but many were transcribed approximately one month after the interviews were conducted. Recording and transcribing interviews was very important to preserve the integrity of the research as respondents' exact words and the context in which they were spoken could be presented in the analysis section of the paper (Silverman, 2005:184).

*Ad-hoc meaning generation* was used to analyze the data obtained from the transcriptions of interviews and focus group discussions (Kvale, 1996:189). Firstly, interviews were transcribed in entirety with only small irrelevant sections excluded from the transcriptions. The transcriptions were then read as a whole to get the general feeling of what kind of information was being generated and created. They were then read a second time, and important sections were isolated for further analysis (Gerson and Horowitz in May, 2003: 217). Statements were enumerated in order to see how many times similar feelings were expressed amongst the interviewees, noting patterns and similarities in the texts. Contrasting views were also important to gauge how the different parties felt about the different issues. Patterns clearly developed and a concept called the "Triangle of Mistrust" emerged (*see chapter 6*).

## 4.5 Ethical considerations

**Informed consent** was received orally before each interview and focus group discussion. Subjects were told of the purpose and aim of the research and asked if they were participating voluntarily. When sensitive topics like illegal connections, vandalism, tribal separation and threats were broached, interviewees were reminded and assured of anonymity as suggested by Brydon in Desai and Potter (2006:26). Additionally, information which could lead to subjects being identifiable or identified has been eliminated and pseudonyms have been used for all quotations in order to preserve the anonymity of interviewees (Brydon, 2001:510). In few instances in this body of research, the names of key informants have been used in order to emphasize especially important points or findings but permission has been obtained for the use of all names contained herein.

Because this research is a study of sensitive and often hostile relationships, the researcher had to be particularly aware of when it was acceptable to probe deeper for more information, and when it was time to stop. Brydon in Desai and Potter (2001:28) states that **power relationships** tend to “inform respondent’s contribution to the research” and that a researcher must have spent “a number of months” in the field to get a proper grasp of the local nuances of power. Spending four and a half months in the field was very important in this respect because the relationships discussed in this study are steeped in the nuances of power. It was very helpful to have a firm understanding of the relationships so that statements and answers from respondents could be properly analyzed and examined in the proper context.

Patton in Mikkelsen (2005:341) explains that the interviewer is indeed human and therefore responsive to human pain and suffering. Ethical issues arose when interviewees sometimes asked for financial assistance after interviews. Such requests were sensitively declined. However, during breaks at discussions, sodas and light snacks were given to attendees to provide sustenance for the second half of discussions.

## 4.6 Limitations

The following limitations either impaired or constricted the scope of the research. In some cases, methods used to overcome the limitations are presented.

#### **4.6.1 Political Conflict**

The main limitation to the research was the political violence which erupted in December 2007. The researcher had been advised by persons in the field that it would be better to carry out interviews and focus group discussions in the New Year, *after* the Christmas and election periods. Thus, the researcher used the month of December to fine-tune the interview guides and to continue conducting desk research. In early January, only few interviews and no focus group discussions as an independent researcher had yet been conducted. It was only with the help of NGO's and contacts in the field, that the researcher was able to enter the informal settlements and conduct research, under very strained and unstable conditions.

#### **4.6.2 Tension between Water Vendors and Community Groups**

The researcher had hoped to conduct more focus group discussions with *both* water vendors *and* members of the community including CBO's in attendance, but the hostility and tension between the two groups often impaired this from happening. Very often, the researcher had to hear from both sides separately and analyze the research as such. It would have been beneficial to observe more interactions between the two groups. However, during the times when there was interaction, it was often hostile and unfruitful.

#### **4.6.3 SSIP's in Sanitation not Investigated**

The issue of sanitation has not been investigated. While water and sanitation are often grouped together, the two have different sets of providers, and are guided by different sets of policies within the sector. NCWSC's relationship with the sanitation SSIP's should be investigated and it would be interesting to see if a similar pattern like that found in this research emerges, namely the "Triangle of Mistrust" which is introduced in Chapter 6.

#### **4.6.4 Critique of Empirical Data**

In qualitative research, the respondents' feelings, perspectives and opinions make up the bulk of empirical data. For this study in particular, respondents' views were steeped in historical and traditional underpinnings. Because of this, the information given was often very emotive and told of a sense of injustice felt by many parties involved. Stories were sometimes extreme, and while they offered good insight into how the respondents felt, the information could not be used as the researcher tried to steer away from presenting information that was either too extreme or could not be corroborated. Thus, the researcher only included incidents or information that was repeated several times by different parties.

## **5. Background**

The following section presents the background of the formation of NCWSC. It starts with the water reforms of 2002, and further explains how the sector has been re-structured to separate the different tiers of responsibility. It ends with a look at the operational modality of NCWSC.

### **5.1 Water Sector Reforms of 2002**

In the 1980's and 1990's, the water sector was rife with problems which were caused by lack of cohesion in the then Water Act Cap 372. In 1992, the National Water Master Plan Study was commissioned by the government of Kenya and the findings confirmed that financial constraints caused by lack of comprehensive policy, lack of institutional framework, lack of centralized decision making and lack of adequate financing mechanisms, prevented the development and expansion of the sector (Ministry of Water and Irrigation, 2007a).

The problems faced by the sector were varied and complicated. There were inadequate funds for the development, operation and maintenance of water supplies and management of water resources (Ministry of Water and Irrigation, 2005:5). Institutional weaknesses inclusive of the scarcity of skilled and qualified manpower meant that water supplies were not operated and maintained in a sustainable manner (ibid). Unevenly distributed resources led to the frequent unavailability of water. Poor technological choices were often made in terms of water supply and sewerage development. This was compounded by inconsistent project selection criteria which resulted in the adoption of technologies and delivery mechanisms which were not well suited to the development of the water sector. Cross sector cooperation was also weak, which led to lack of coordination, weak inter-linkages and lack of information sharing (ibid).

The government of Kenya recognized that its water sector was in need of reform and initiated a review of policy and institutional frameworks. The government embarked on participatory reforms inclusive of tests and pilot projects, aimed at developing and co-coordinating comprehensive water management policies, strategies, approaches, sound practices and programs (Mwangi, 2007). These undertakings culminated in the Sessional Paper No. 1 of 1999 entitled, "National Policy on Water Resources Management and Development". The Sessional Paper outlined a framework that identified private sector and community

participation as being imperative in developing a comprehensive and sustainable water resource management agenda ((Ministry of Water and Irrigation, 2007a).

Through the Sessional Paper, The Water Act 2002 was formulated, debated, and then passed into law on March 18<sup>th</sup> 2003. The key principles of the reform are: separation of policy, regulation and service provision; separation of water resource management from provision of water and sewerage services; devolution of responsibilities for water resource management and water service provision to the local level; enhancing the sustainability of service provision (Ministry of Water and Irrigation, 2007a) (*see figure 2*).

In accordance with the Water Act, Water Service Boards (WSB's) are licensed by the Water Services Regulatory Board (WSRB). Seven WSRB's have been established under the Ministry of Water and Irrigation (MWI) and each is responsible for the efficient and economical provision of water in their areas of jurisdiction. In further compliance with the Water Act, the WSB's are required to provide services through agents of the board known as Water Service Providers (WSP's). NCWSC is a WSP licensed by the Athi Water Service Board.

The government of Kenya is dedicated to achieving the Millennium Development Goals (MDG's), inclusive of the water targets which aim to halve by 2015 the proportion of people living without safe, reliable, affordable and sustainable access to safe drinking water. Athi Water Service Board has a pro-poor policy which is also dedicated to these targets. Therefore water service providers (WSP's), and by extension NCWSC, must take up the challenge to extend coverage to the urban poor as coverage to this group would to a large extent help ensure that MDG targets are met (Athi Water Service Board, 2007:4).

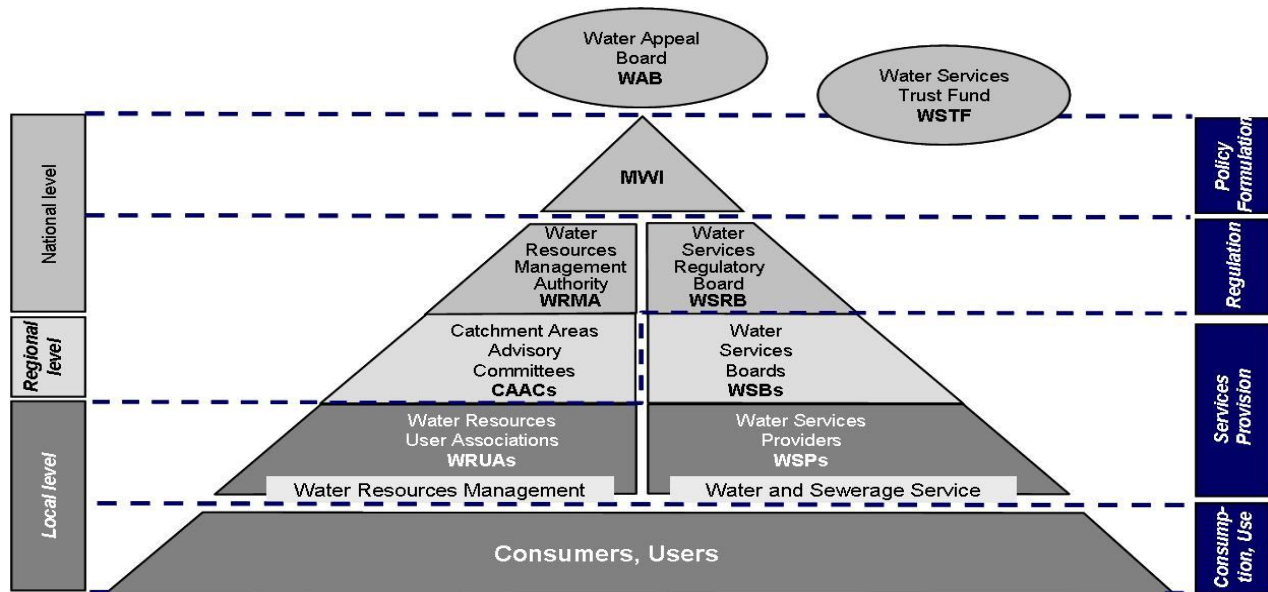


Figure 2: Pyramid representing the institutional reforms of the Kenya water sector<sup>5</sup>

NCWSC is a public company with private company characteristics. This means that while revenue generation is the goal of the enterprise, said revenue is ring-fenced (ploughed-back) into the sector as mandated in the Water Act. Approved methods of ring-fencing include staff expansion and training, improvements in services and infrastructure, and provision services to the poor. In the case of NCWSC, ring fencing enables service provision to the urban poor, especially those residing in the informal settlements (Mwangi, 2007). After the water reforms of 2002, all assets from the previous utility were transferred to NCWSC inclusive of infrastructure as well as many members of staff. It is important to note that before the water reforms of 2002, the Water and Sewerage Department of NCC was responsible for water services provision. However, while NCWSC, the new utility, is wholly owned by NCC (local government), it operates autonomously.

<sup>5</sup> Pyramid developed by the Kenyan Ministry of Water and Irrigation. Although the right side of the pyramid is relevant for this study, the entire pyramid has been presented to give an overall picture of how the sector has been restructured. Note: MWI-Ministry of Water and Irrigation.

## 6. Presentation of Findings: The Triangle of Mistrust

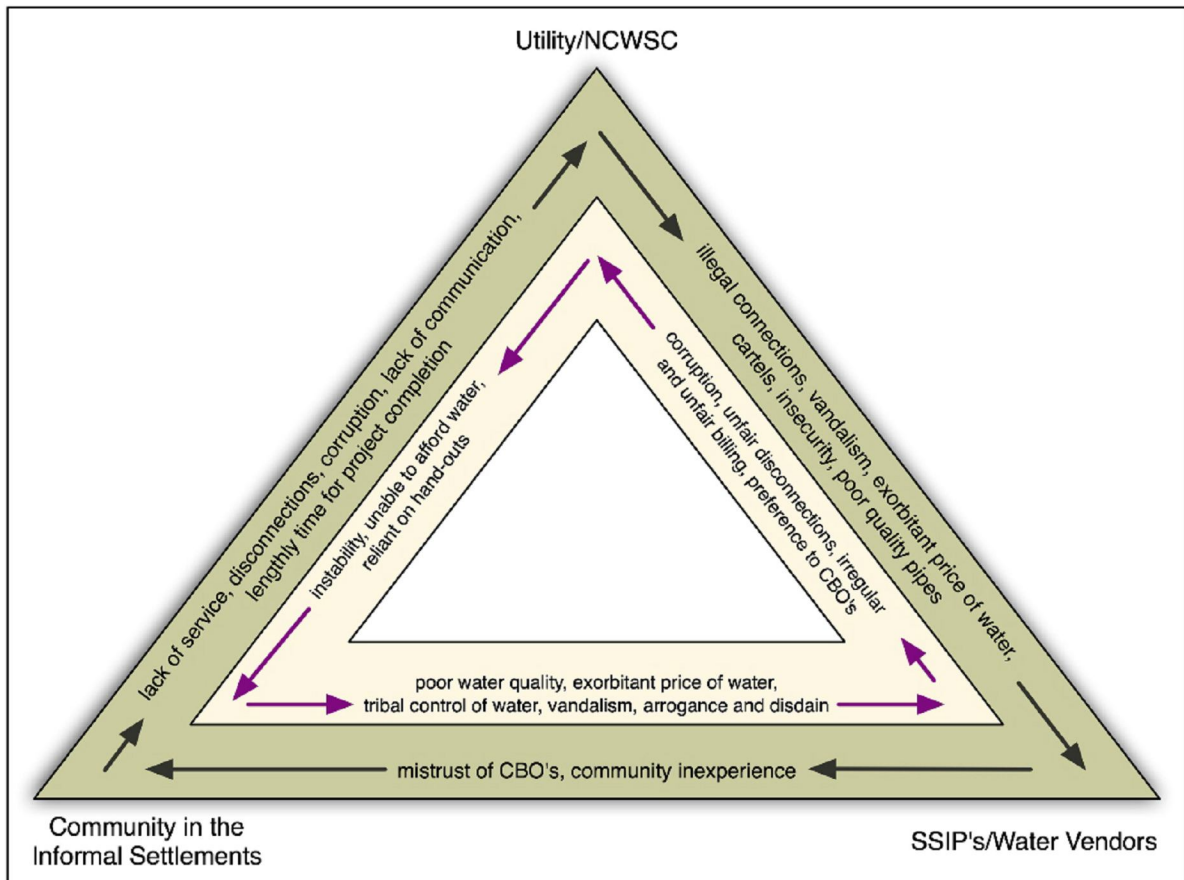


Figure 3: Diagrammatic representation of the "Triangle of Mistrust"

Note: the arrows in the diagram run in opposite directions to illustrate the accusations and counter accusations which cause the mistrust between the three parties in the Triangle. Additionally the colours are for the purpose of differentiation and do not have special significance.

Chapters 6 and 7 attempt to answer the first research question: *What is the relationship between NCWSC, water vendors operating in the informal settlements and the community in the informal settlements and why is it like this?* In order to maintain the integrity of the findings, these two chapters do not go into analysis. After findings are presented objectively, the analysis is conducted from chapters 8 to 10, in which findings are linked to the theoretical framework presented in Chapter 2.

Upon examination of the relations between numerous stakeholders in Kenya's water sector, especially those involved with NCWSC, it became clear that the water vendors and the community in the informal settlements were key if the utility's involvement in the informal



settlements was to improve. The term, “Triangle of Mistrust” was coined, to highlight the strained and often hostile relationship between the *utility, the water vendors and the community in the informal settlements (see Figure 3)*. In order for effective changes to take place in terms of improving water services provision to the informal settlements, there needs to be an improvement in interaction, cooperation and communication amongst all three parties in the Triangle. In their comprehensive study of informal water vendors and the urban poor, Kjellen and McGranahan (2006:19) mention that “improving relations between vendors, consumers and water utilities” is important to improve water services provision to the urban poor. This research takes this view even further and *focuses* on the relationship, contending that it is not only important but *essential* for the relationship between these three parties to improve if water services provision is to also improve. *The utility is placed at the top of the triangle for two reasons. Firstly, it is the utility’s traditional lack of involvement in the informal settlements that has led to the formation of the Triangle of Mistrust. Secondly, the utility is the only player in the Triangle with the power to influence the relationships, through its partnerships with NGO’s and other organizations, and availability of and access to a variety of resources.*

## **6.1 Players in the Triangle**

Before the water reforms of 2002 and the formation of NCWSC, the Water and Sewerage Department of NCC was responsible for water and sanitation services in Nairobi. It is important to take a brief look at the problems that were prevalent in NCC in order to understand exactly what kinds of problems NCWSC inherited from them. These inherited problems contribute significantly to the hostility and mistrust within the Triangle. The three players in the Triangle are then presented, namely, NCWSC, the water vendors and the community in the informal settlements.

### **6.1.1 Nairobi City Council (NCC)**

*Corruption:* By the admission of all stakeholders, and past workers from NCC itself, the organization was rife with corruption which ran from the highest to lowest levels. Workers from NCC colluded with vendors in the informal settlements to set up illegal connections and took bribes in order to fix leakages and broken pipes. NCWSC inherited workers from NCC,

and while there has been training and capacity building sessions for workers of NCWSC, there are still pockets of corruption that exist within the company.

*Improper Billing:* NCC had an extremely inefficient billing system. There were thousands of accounts for people who could not be traced and community dwellers were billed exorbitantly for water that was never used. Because of the corruption and improper billings, the communities in the informal settlements had a very negative view of NCC. When NCWSC was formed, it inherited the negative impression of the former utility.

### **6.1.2 Nairobi City Water and Sewerage Company (NCWSC)**

NCWSC is a wholly owned subsidiary of NCC. It is a public company with private company characteristics. This means that it is a private company which is owned by the local government but operates autonomously. The board of directors represents a wide cross section of the community and consists of persons from NCWSC, NCC, Kenya Chamber of Commerce, various NGO's and representatives from the religious community. Thus multiple interests are represented when important decisions are being made.

### **6.1.3 Water Vendors**

Water vendors have been operating in the informal settlements for decades and provided water and sanitation services when the utility did not. Vendors used their own money to extend pipelines into the settlements, to buy tanks and often to bribe officials at NCC. Kjellen and McGranahan (2006) make the point that water vendors have been praised for their entrepreneurship and ability to reach the poor in inaccessible areas but they are often criticized for “exploiting people’s absolute and basic need for water”.

### **6.1.4 Community**

Only 22 percent of people living in the informal settlements of Nairobi have an electricity connection and “barely” nineteen percent have access to a supply of piped water in the form of either an in-house connection or yard tap (World Bank, 2006:7). Added to this, 92 percent of people living in the informal settlements are rent-paying tenants as opposed to squatters who build and use their own units. A World Bank 2006 report finds that while in other parts of the world informal settlements usually provide low-quality, *low-cost* shelter, Nairobi’s settlements are marked by low- quality, *high-cost* shelter (ibid).

## 7. Presentation of Findings: Dissecting the Triangle

This chapter continues to answer the first research question by describing the relationship between the three parties in the Triangle in detail. It is important to note that the accusations that are cast against the parties have either been corroborated by other players in the triangle or have been expressed by several persons interviewed.

### 7.1 The First Side

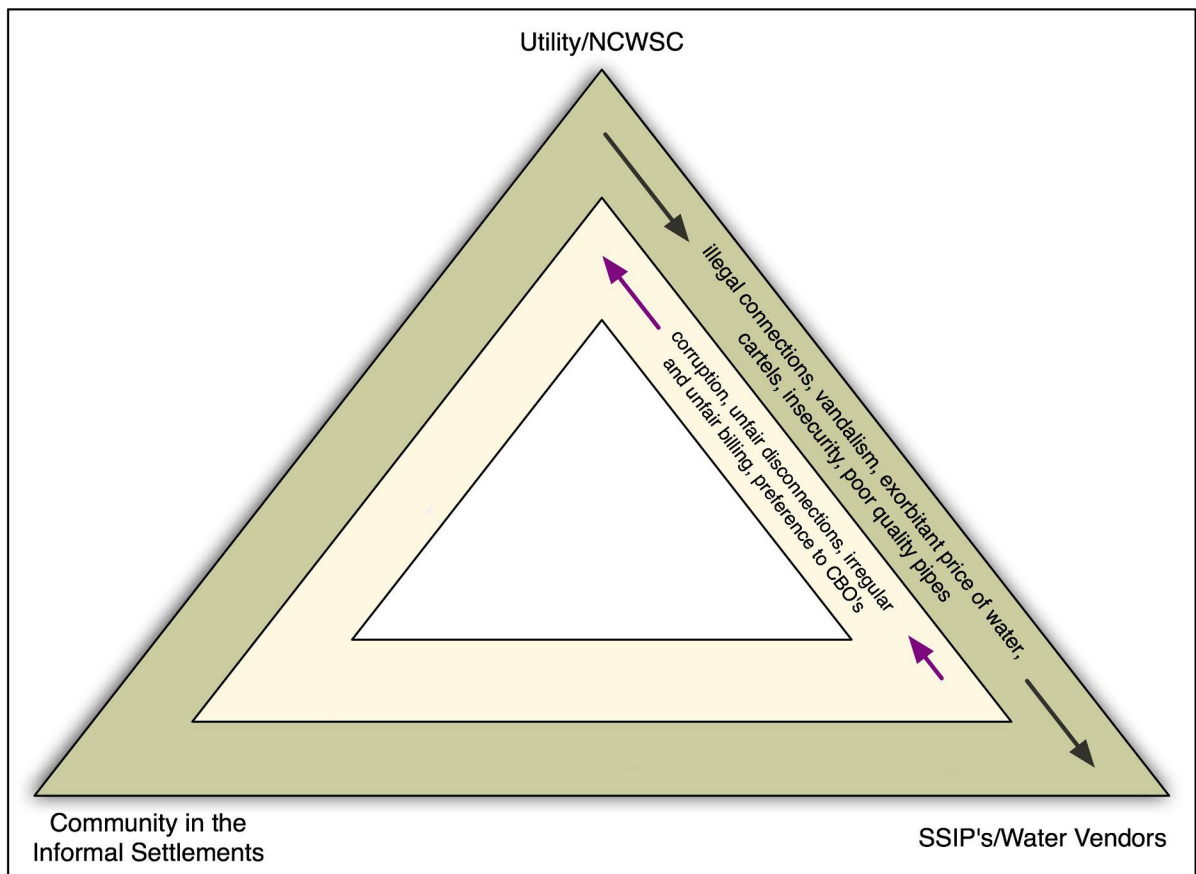


Figure 4: The first side of the Triangle of Mistrust- Utility/NCWSC and SSIP's/Water Vendors

#### 7.1.1 The Accusations- From NCWSC to Water Vendors

*Illegal connections-* Officials at NCWSC have a long list of grievances against the water vendors. The most significant complaint is the proliferation of illegal connections that mark the water business in the informal settlements. There are no exact figures, but it is generally agreed that there are thousands of illegal water vendors operating in the informal settlements.

Vendors run illegal pipes sometimes 1,500 meters from company mains into the informal settlements, contributing to the spaghetti networks that are the trademark of water activities in the informal settlements (Water and Sanitation Program, 2005:5) (*see appendix C2*). Illegal vending costs the company millions of shillings per year although no one at the company is able to say exactly what the figure might be. One official puts it clearly when he says:

“Especially for Kibera, it’s hard to say how much water we are losing. Based on illegal connections to say volume wise, this is how much has been consumed out of what we have injected... it’s difficult. There is a lot of unaccounted for water...In Kibera they do many strange things. There can be a supply line, and at night the illegalities happen. You wake up and find 101 connections that were not there yesterday.” Charlie- NCWSC Official. Interview, January 16, 2008.

*Vandalism-* Vandalism of company property is another problem that the company faces. Water vendors are in constant rivalry with each other and NCWSC. In order to stop the company’s supply of water to an area, they cut the company’s pipes, or divert water flow to another direction. This is done to induce water shortages in certain areas so that the price of water can be increased. Vendors are also accused of meter-tampering where they steal, hide and vandalize meters so that utility workers are unable to read them and therefore unable to do billings.

*Exorbitant Price of Water-* NCWSC recommends that water be sold at 1-2 KSh<sup>6</sup> per 20 liter jerrican (plastic container), but vendors sometimes charge up to 20KSh, 20 times higher than the recommended price. NCWSC also accuses the vendors of causing water shortages by deliberately not selling for a few days. This accusation had been confirmed by some vendors who admit that such practices do exist, although no vendors would say whether they, themselves were ever involved in such acts.

*Cartels-* Although water cartels are no longer the problem that they were in the recent past, mistrust and hostility still remain because of them. Water vendors formed gangs in the informal settlements and controlled the water business through intimidation and violence. The most infamous gang called *Mungiki*, resorted to murder to ensure that the status-quo of water

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<sup>6</sup> KSh- Kenya Shillings: US\$1= 61KSh.

remained (Kimani, 2008). These groups made it almost impossible for members of the water company to enter the informal settlements to read meters and check for illegal connections.

*Insecurity-* Not only the cartels, but many vendors in general cause insecurity in the settlements. “Security patrols” use *pangas* (cutlasses), and other crude weapons like axes and saws to patrol the lines at night. In the past, workers of the water company were accosted by persons employed by vendors, in order to intimidate them and to prevent the reading of meters. Although such incidences have decreased, NCWSC still does not want to enter the settlements because of these issues.

*Poor Quality Pipes-* Water vendors in the informal settlements most often use pipes that are of poor quality (*see Appendices C1, C2 and C3*). Plastic pipes and sometimes electricity conduits are used instead of the steel pipes recommended by the water company. Poor quality pipes are prone to leakages and breakages that cause the company to lose copious amounts of water on a daily basis. Unaccounted for or non-revenue water, is one of the most significant challenges faced by the water company, and the use of plastic pipes has contributed greatly to this problem. Additionally, when pipes burst and pass through garbage and sewage, the water supply becomes contaminated, leading to sickness and disease outbreaks.

### **7.1.2 The Accusations: From Water Vendors to NCWSC**

*Corruption-* The major complaint that the vendors have against the water company is that of corruption. While there is general agreement that corruption is not as bad as it was during the NCC administration, many water vendors complain that they still have to bribe company officials to get things done. One water vendor verbalized the feelings of many when he said:

“The same people in the water company are the same ones who were in the City Council. If the system is really to work, the people need to be changed or transferred to Mombasa. We have a situation of “*magendo*”<sup>7</sup>... There is *no way* the same person from Nairobi City Council can be part of the Nairobi Water Company and he knows all the pipe routes.” Tom- Water Vendor. Group discussion, January 18, 2008.

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<sup>7</sup> Bribes

Vendors complain that although they have been forming associations in order to work with the company to try to stamp out corruption amongst vendors in their communities, “junior officers” still assist persons in the informal settlements to connect water illegally.

*Unfair Disconnections-* Another element of corruption takes place in the form of unfair disconnections. Many vendors claim that when they refuse to give persons from the company bribes, they often find that they have been disconnected. A group of water vendors explained that when they complained about other vendors who were illegally connected, workers from NCWSC came into the settlements and dismantled all connections, without checking who was legal and who was not. One vendor says,

“They wanted to punish us so that next time we do not complain.” Paul- Water Vendor. Group discussion, January 18, 2008.

*Irregular and unfair billing-* Water vendors across all settlements complain about irregular and unfair billing practices. Again, this is a problem that the water company has inherited from NCC and although the billing system is being improved upon, there are still problems with incorrect bills being sent. In one group discussion with vendors, a woman who had been a vendor for approximately three years shared that she once received a bill of 6,000 KSh and upon initiating a query at the NCC, she was informed that the correct bill was 1,500 KSh.

Thus, historical practices of unfair billing and present problems of irregular billing contribute to the lack of goodwill felt in the Triangle.

*Preference to CBO's-* There is a general consensus in the water and sanitation community of Nairobi, that in order for water and sanitation services to work in the informal settlements, the communities must become directly involved. NCWSC in collaboration with various NGO's in the water and sanitation field, have been training CBO's to run water points, toilets and Chamber Systems (*see Chapter 8*). Trainings have been given on financial management, leadership, record keeping, project management, water and pipe quality and construction. Vendors feel that in the new move toward involving the communities in water services provision, they are being treated unfairly. They point toward the fact that many CBO's are given free tanks and money to buy high quality pipes. CBO's charge the recommended price

for water, 1-2 KSh per 20 liter jerrican, and this has forced vendors to bring their prices down in some areas. A disgruntled water vendor said that he does not care if CBO's are used to run water points, but he felt that the water vendors were not treated fairly by the company.

## 7.2 The Second Side

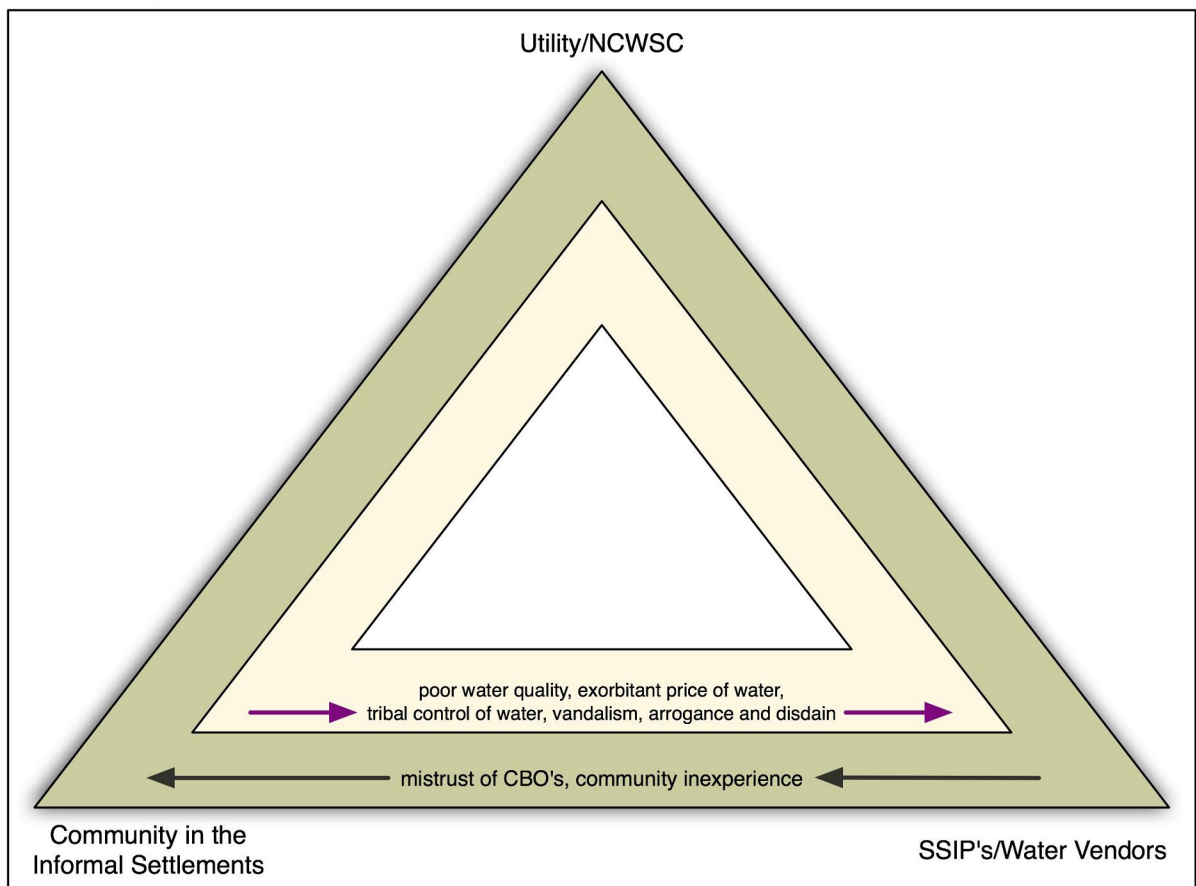


Figure 5: The second side of the Triangle of Mistrust- SSIP's/Water Vendors and Community in the Informal Settlements

### 7.2.1 The Accusations- From Water Vendors to Community

*Mistrust of CBO's*- Historically, water vendors have not had a reason to have any mistrust or hostility for the communities from which they earn a living. The research shows that although the community has been disgruntled with the vendors, they paid the prices that were charged for water, thus vendors had no reason to be displeased with the relationship. However, with



the new focus on CBO's the vendors find themselves being forced to cooperate with the community, a position that they have never encountered before.

In October 2007, at the Ngong Hills Hotel in Nairobi, a workshop hosted by two NGO's ended in a deadlock, with hostility and threats from water vendors to community members. From this meeting, it was clear that water vendors were strongly against the idea of introducing CBO's into the water business in the informal settlements and also against co-operating with them.

On a separate occasion, months later, during a focus group discussion, a water vendor was asked if he could envisage a way for the vendors and CBO's to work together. He answered in the following way:

“To be honest, this is a business madam” (Hostility in voice and static in the room). “In business, you will be for your own success and I will be for my own success. CBO's and vendors have different objectives. As an individual vendor, my success depends on me. Those CBO's, their money comes from donors. So even if he makes a loss he does not care. We ABC<sup>8</sup>, we are vendors, so we will work with vendors! We will NOT work with CBO's!” (Strong and hostile agreement come from the other vendors in attendance). John- Water Vendor. Group discussion, January 18, 2008.

This anger and hostility toward the community has resulted in the vandalism of CBO pipes as mentioned above and a feeling amongst many CBO's that they do not want to enter the water business for fear that the richer and stronger water vendors will retaliate against them.

*Community inexperience:* Water vendors explain that the community has no experience in the water business and will therefore cause confusion and chaos in the informal settlements if they try to manage water points. When mentioned that in some smaller informal settlements there are groups successfully running water points and toilet facilities, and doing very well financially, water vendors seem to shrug these off as anomalies. In the large informal settlements like Kibera, community groups successfully manage bio-centers<sup>9</sup> but the water vendors are quick to brush off this accomplishment, claiming that such CBO's are political and tribal, and financially supported by members of the opposition party.

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<sup>8</sup> Pseudonym for vendor association.

<sup>9</sup> A bio-center is a sanitation tower which has multiple uses. It has three floors. The first floor has toilets and showers, the second floor had meeting rooms, and the top floor is open with a thatched roof. At the bio-center, human waste is converted to biogas and liquid fertilizer for various uses.

## 7.2.2 The Accusations- From Community to Water Vendors

*Poor quality of water-* By their own admission, the quality of water that vendors sell is of a much lower standard than that coming from company mains because of the use of poor quality pipes. Vandalism amongst vendors is high as they compete amongst each other for sales within the settlements. Thus, vendors insist that they cannot use high quality pipes because the theft of such expensive materials could drive them out of business. Secondly, vendors point out that steel pipes are costly and the NCWSC offers no help for purchase, laying or construction of these pipes. Vendors explain that the cost of setting up a water business is high as tanks, materials and a *fundi* (plumber) need to be secured. However, members of the community view the use of low quality pipes differently. In one focus group discussion in Mukuru, there was agreement that the vendors used plastic pipes so that they could move easily from place to place, wherever the price of water was highest. An elderly man, who has lived in the settlement all his life, says with great passion and force,

“If you talk about the relationship between the vendors and the community, it is very poor because one, they don’t care about our health, because we don’t get clean water. When they walk along their lines, they cut other people’s lines and they don’t care if what they are disconnecting is a sewer line. They have ill motives...they hike<sup>10</sup> the water to get more money. They usually disconnect other vendor’s pipes for their own selfish reasons so that now the demand of water would be high. They are also nomads in a way. They go where they feel there is a water shortage and disconnection so they sell water there. They don’t care where their position is.” George-Community Elder. Group Discussion, January 15, 2008.

*High Price of Water-* Community members in the informal settlement of Mukuru explain that while the community knows that they are paying high prices for water of “compromised” quality, there is nothing that they can do. In the four informal settlements examined in this study, all community members accused the vendors of manufacturing water shortages, so that they could raise the price of water. Most community members expressed that the vendors’ only concern is to maximize profit and as such, their prices reflect this business goal. Some vendors vehemently refute this claim saying that when there is no water, they also suffer and must accompany community members to find water.

*The tribal control of water-* This is an issue that is not often raised in discussions about water in the informal settlements of Nairobi. However, in this research, the issue of tribe was brought up in Kibera, Mukuru and Mathare. In each settlement, a different tribe is accused of

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<sup>10</sup> In Kenya “hike” means- “increase the price of”.

having a monopoly on the water business, and community members insist that if one is not a member of the ruling tribe, it would be almost impossible to join the water business. The tribes are accused of keeping a tight reign on the water business by using threats, force and vandalism. Interestingly however, the CBO's themselves admit that their groups are usually organized by tribe, and warn that if a group is given a Chamber System<sup>11</sup> to run, NCWSC runs the risk of being accused of tribalism.

*Vandalism-* During focus group discussions, community members expressed that their CBO's might be interested in getting water connections, but that they were afraid because they knew of other CBO's whose pipes had been vandalized by individual vendors. There were also members of CBO's present whose groups were in the water business and who told of threats from water vendors. One woman whose CBO runs a water and sanitation project explains,

“Let me say the vendors don't feel good when a group runs a water project. What they do is they disconnect the pipes. Most times they harm our pipes so we cannot get water. And if you blame them, they cut you<sup>12</sup>. So there is a problem with vendors.” Jane- Member of Water and Sanitation CBO. Group Discussion, January 17, 2008.

*Disdain and arrogance-* Community members feel that water vendors treat them with disdain and arrogance. This was observed first hand in the informal settlement of Mukuru. The focus group discussion was organized and both community members and individual vendors were invited. While 20 community members were in attendance, no water vendors were present. Instead, a few water vendors who had been invited stood outside the building where the discussions were being held, loitering around, smoking cigarettes and looking intimidating. The community was very aware of the message that was being sent: that water vendors did not want to have any part of discussions that involved the topic of cooperation with CBO's. During this meeting, one community member could no longer contain his frustration and he suddenly said,

“These people are arrogant! Even you see now we can't get one vendor to join our meeting because he is busy connecting his plastic pipes!” (Last part said with sarcasm and there is weak laughter from the group). Larry- Member of Youth CBO. Group discussion, January 17, 2008.

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<sup>11</sup> The Chamber System is explained in detail in Chapter 8.

<sup>12</sup> When asked what she meant by “cut”, she further explained that she meant “physically harm with a knife”.

## 7.3 The Third Side

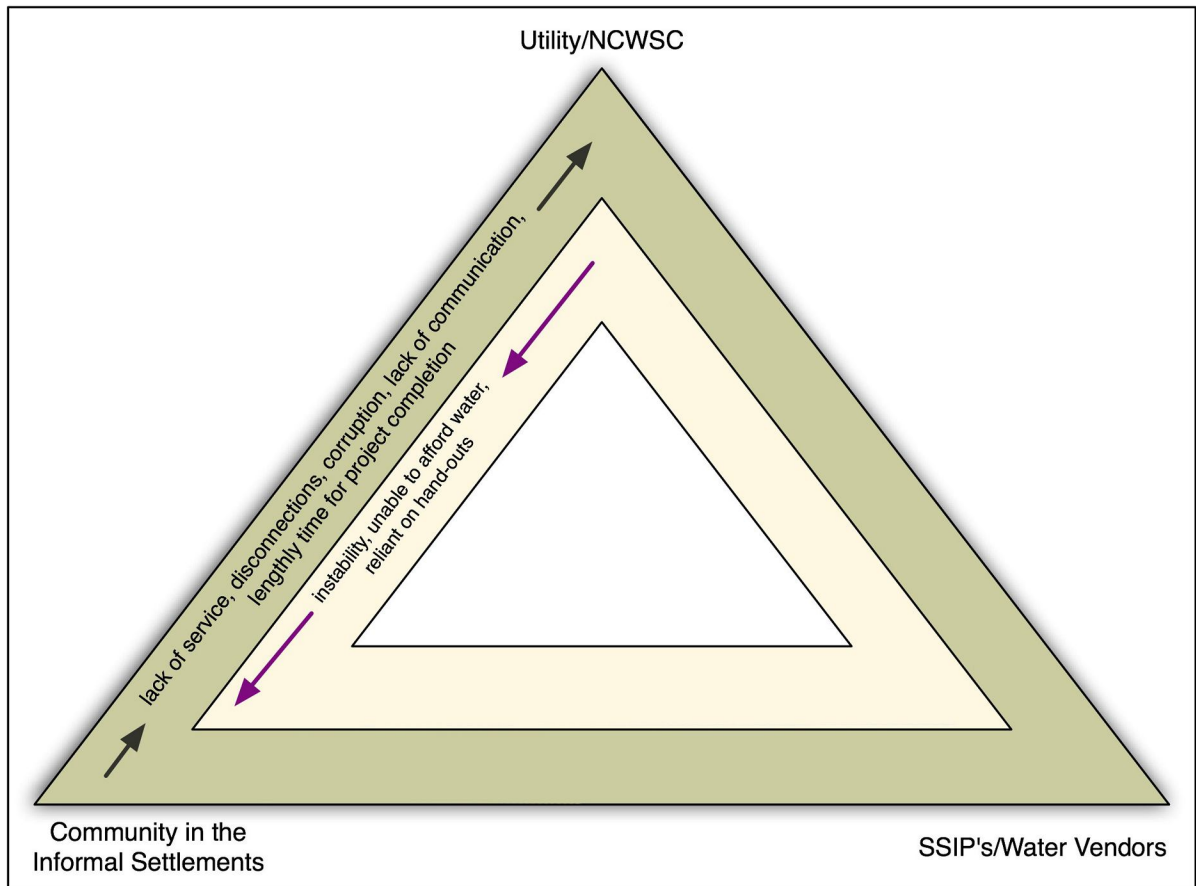


Figure 6: The third side of the Triangle of Mistrust- Community in the Informal Settlements and Utility/NCWSC

### 7.3.1 The Accusations- From Community to NCWSC

*Lack of Service-* Although NCWSC is now trying to introduce water projects in the informal settlements, traditionally, there has been no involvement. For decades, residents of the settlements had to find alternate ways of accessing water and this is what led to the proliferation of illegal connections and clandestine vending activities. Decades of “non-service” have led the communities to harbor severe distrust and apathy for the utility.

*Disconnections-* In 2006, in an attempt to get rid of thousands of illegal connections, NCWSC embarked on a series of mass disconnections in the informal settlements. People in the settlements went without water for approximately two weeks and there was a human outcry from the nation. The company was accused of being callous, uncaring and inhumane. Today, NGO’s and people in the community still talk about the disconnections with shock and

indignation. The mass disconnections have contributed greatly to the feelings of mistrust that exist in the triangle. To make amends, water is now provided freely in some settlements while Chamber Systems are being built or plans are made for construction (*see Chapter 8*). However, a positive aspect of the disconnections was the disbandment of *Mungiki*, the group that brutally controlled water in the informal settlements. When water was disconnected, they no longer had a source of income, and because water is presently free, they have no business to return to.

*Corruption-* Before the water reforms of 2002, NCC had a dubious presence in the informal settlements. Their interactions were with illegal vendors and they could be seen openly carrying out deals with water vendors. The communities in the informal settlements always bring up this point up when talking about NCWSC. When reminded that NCC is no longer in charge of water and NCWSC is the new utility, community members generally agree, but it is clear that there are still feelings of mistrust toward the company because of these past issues with NCC. Like the vendors, some community members have also expressed the concerns that workers from NCC were transferred to NCWSC and wonder if the company can really change if these workers are still there.

*Lack of Communication/Long time for project completion -* In various informal settlements, the water company had assured residents that Chamber Systems would be built for their communities. The water company went so far as to convene community meetings and have interested groups fill out applications for connections. In the informal settlement of Mukuru, the water company conducted meetings in April 2007, had groups fill out applications by a June 2007 deadline and assured residents that the new Chamber System would be in place within a few months. By January 2008, the community had not yet heard from the company and their efforts to contact company officials were fruitless, with community members being told that the project was not yet in place. Residents in the informal settlement of Mathare tell a similar story. Officials of NCWSC came to the settlement in July of 2007 and assured them that by December 24<sup>th</sup> 2007, the Chamber System would be ready. However by the second week in January 2008, work had not yet started. Community members feel that the water vendors have been bribing officials at the water company to delay the construction of the chambers.

One community member says,

“Last July/August, they sent field officers to come survey the sites and we are still waiting for this long time. We feel they are not serious on this matter and we are looking at them as if maybe they are getting bribes from the water vendors. Because the way vendors behave, they are arrogant toward us. And when the vendors heard that there was going to be such a project of CBO’s having water, that is when they hiked the price. They charge between 5 to 20 shillings for a 20 liter jerrican. It is never below 5 shillings. That is why they can never be happy when they hear the CBO’s want to apply for the same water to come and sell for the community. They are making a big profit. So they bribe!” Harold- Community Leader. Group discussion. January 17, 2008.

When the person above made this comment, there was strong agreement from the other community members who participated in the focus group discussion. It was clearly an issue they had discussed and agreed upon before. NCWSC’s lack of communication with the community led to the formation of the belief that the company was somehow colluding with the vendors thus leading to wild speculations and increase of mistrust.

### **7.3.2 The Accusations- From NCWSC to Community**

*Unstable atmosphere in the settlements:* Officials at NCWSC recognize that it is the lack of the utility’s involvement that has led to illegal connections. The informal settlements in general are viewed with distrust and anxiety by utilities and various authorities. Skirmishes, fighting, insecurity, and similar problems can suddenly erupt in the informal settlements, leading to vandalism of company property.

*Unable to afford water:* The past utility NCC and the present utility NCWSC, both believed that people living in the informal settlements are too poor to afford water. Officials felt that any involvement in the settlements would lead to losses incurred by the company. However, this point of view is beginning to change as officials recognize that people living in the settlements actually pay more for water than persons living in other areas. Although officials acknowledge that there is the *potential* to make significant profits in the informal settlements, there is still an underlying feeling that the utility is apprehensive about doing business there because of the poverty within.

*Reliance on hand-outs:* A few of the company officials have commented that the community in the informal settlements are reliant on hand-outs and therefore want to receive free water

indefinitely. However, this is slowly changing and communities are organizing themselves to help in construction and partial financing of projects. Importantly, as far back as 2000, the government found that in terms of poverty alleviation, communities preferred projects that would improve their socio-economic status, rather than projects that merely handed them the service (Kenya Ministry of Environment and Natural Resources, 2000: 24).

**The Triangle of Mistrust** is complicated and consists of deep-rooted feelings with both present and historical underpinnings. While it is not this research's contention that repairing the relationships within the triangle will lead to *easy* water services provision in the future, it is contended that improved relationships will ensure that projects and future cooperation run *more smoothly*.

## **8. Analysis: Bridging the Triangle: Stage 1**

This chapter attempts to answer the second research question: *Since the water reforms of 2002, in what way(s) has NCWSC tried to improve upon water services provision within the informal settlements?* It begins by presenting the utility's first major project in the informal settlements and offers recommendations for improved and more effective engagement. The first step to bridging the Triangle of Mistrust would be the actual engagement of the utility in the informal settlements. NCWSC did this when they designed and implemented the "bulk metering project" also known as "Chamber System" in the informal settlement of Mukuru. An examination of the Bulk Metering Project can point to lessons which the company needs to adhere to if future involvement in the informal settlements is to be successful. It is important to note that there was no official documentation of the bulk metering project in Mukuru. All information was compiled by the researcher through interviews, field visits and discussions.

### **8.1 The Bulk Metering Project in the Informal Settlement of Mukuru**

The informal settlement of Mukuru is located within the Industrial Area of Nairobi, approximately five kilometers from the city center. It is home to approximately 350,000 residents, spread through 15 villages. The settlement stretches for approximately seven kilometers along the Ngong River. The average household is 5 and the residents work mostly

as labourers in the Industrial Area. The first project which advanced under the program of services to the urban poor was the *Water Supply Project to the Mukuru Informal Settlement* where the company constructed 76 chambers in the 15 villages of the settlement, with over 1950 connections. The bulk metering project was a pilot intended to be copied in other informal settlements if met with success. Design and construction started in 2003 and ended in 2006 with the objective of making water more available to the poor in the settlement.

### **8.1.1 Project Objective**

Informal settlements are unplanned, thus historically public services such as water and sewerage have not been available. The lack of formal services delivery has led to haphazard and sub-standard arrangements carried out by the residents themselves, often resulting in illegalities, such as water theft and clandestine vending. It was the objective of NCWSC to regularize water services provision by ensuring higher quality water and lower prices by establishing proper connections to registered account holders and monitoring resale activities through management delegation arrangements with the community.

Within this context, there were four specific objectives: *reduction in the price of water; access to quality water; reduce access distance to water and billing of all water consumed.*

### **8.1.2 Design**

Within the Mukuru informal settlement, illegal spaghetti connections were the primary source of water (*see Appendix C2*). These consisted of low quality pipes which were prone to leakages and easily contaminated with sewerage. The engineers at NCWSC surveyed the settlement and designed the bulk meters specifically for Nairobi's informal settlements.

As can be observed from *figure 7*, the Chambers were constructed on the periphery of the settlement<sup>13</sup>. Vendors and individuals wishing for connections applied to the company, obtained access to the Chamber, then constructed their own pipelines leading into the settlement. Applications and fees ensured that both old and new connections were regularized. Each connection had a locked meter in order to prevent theft. The location of

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<sup>13</sup> For a close look at the inside of the Chamber, please see Appendix C5.



each meter within the Chamber centralizes meter reading which makes it easier for the company workers to do billings.

### The Chamber System<sup>14</sup>

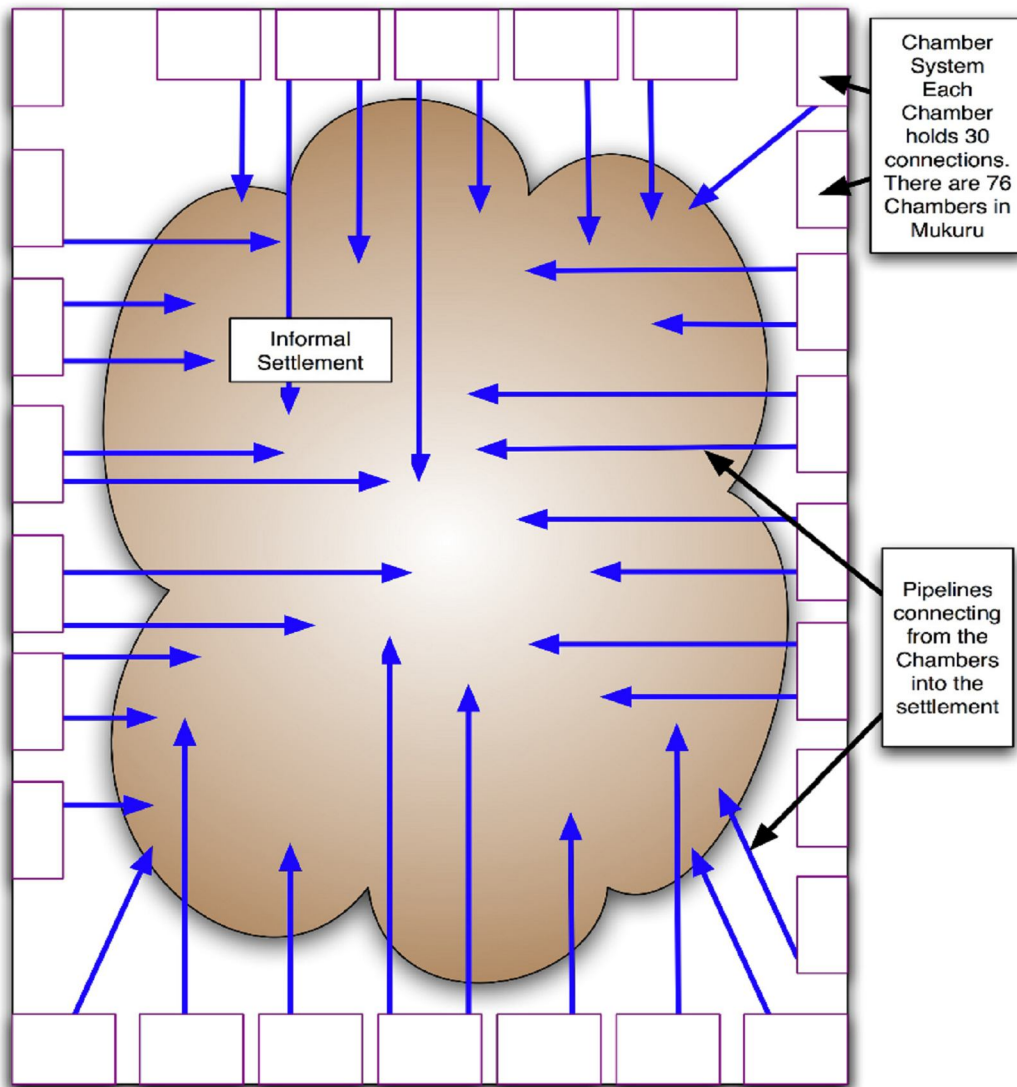


Figure 7: Simple diagrammatic representation of the Mukuru Chamber System

<sup>14</sup> Image developed by researcher based on verbal descriptions from officials of NCWSC and visual observations during field visits to Mukuru.

### 8.1.3 Appropriateness

The needs and priorities of the community were assessed from an engineering perspective, and a design which would meet those needs was formulated. Each person or group who applied for a connection could then sell water at the legal rate to neighbours and people living within their environs. It was the expectation of NCWSC that residents would fully embrace the project and there would be numerous applications for connections. However, the social aspect was not included in the project's design and the community was not engaged in the planning of the model. There were no feasibility studies done and no surveys, meetings or workshops with the community to get their input.

It is important to note that the Kisumu Water and Sewerage Company Limited (KIWASCO) was able to use the same model developed by NCWSC and build upon it with better results. This is because they were able to assess why NCWSC's model failed and fine-tuned their project to address those issues. A KIWASCO document states:

“Involving the local community pre-empted potential conflicts and made logistical needs easier to tackle, e.g. identifying way leaves, access for sub networks, security, community mobilization, cheap local labour, master operator selection and community ownership of the project” (Kisumu Water and Sewerage Company Limited , 2007)

KIWASCO's success shows that in the case of NCWSC, exclusion of community participation was detrimental to achieving the overall goal of the project. Elements of **new institutionalism** can be found in this scenario. The institutional overhaul of the water sector separated the different tiers of responsibility, in the hope of strengthening the sector to make it perform better. Thus, the mechanisms were in place for NCWSC's first engagement in the informal settlements to be successful. However, the social aspect of the project coming from the organization, NCWSC, was weak. New institutionalism purports that not only the institution, in this case the water sector, but the organizations within the sector, in this case, NCWSC, need to adhere to social dimensions of projects and policy for engagement to be successful.

### 8.1.4 Effectiveness

Although the project has had challenges, the main short and medium term objectives have been accomplished. There has been a reduction in the volume of unaccounted for water (UFW/ non-revenue water). Revenue has been increased although not enough to recover the

initial investment of 41,000,000 KSh that was used to plan and implement the Chamber System. The water is safer because of the use of quality pipes which are monitored by NCWSC. The unit price of water has been reduced from 5 KSh/20 litre Jerrican before implementation to 2 KSh/20 liter jerrican. The access distance to water has been reduced due to the number of connections in the various villages of the settlement and the increase in the number of water kiosks. Finally, the environment is cleaner as there are fewer pipes with leakages and less stagnant water in the villages.

The major failure of the project is that the application rate for meters is very low. The community seems suspicious of the meters and is not willing to apply for connections. In many cases, where people have received connections, they have been vandalized sometimes beyond repair. Further, some legal connections have been tapped into, and the water directed into illegal pipelines. Thus, people are billed for water they have not consumed or sold. Additionally, water cartels prevented the project from being successful. These cartels try to maintain their status as the main providers of water by intimidating meter holders and vandalizing pipelines. They are further able to sabotage the project by obtaining connections in the chambers then ignoring the bills, so that connections are cut. Members of the cartels move from chamber to chamber using this method, so that many connections cannot be reused.

### **8.1.5 Lessons Learnt by NCWSC**

*NCWSC's initial assessment* indicates that there are numerous lessons to be learnt from the Mukuru project. Firstly, provincial administration and the community must be involved in the early stages of the project. Secondly, vendors need to be educated on the intended project. Thirdly, clear roles for each stakeholder should be identified. Finally, there is a need to engage community policing. In many African countries, there is a cultural practice of including chiefs and community leaders in projects before their inception. This ensures that all parties are fully informed about the project and are ready for it to be introduced. By including chiefs, the points just previously mentioned could have been adhered to. **New institutionalism** exposes on “cultural-institutional-diversity” (Harriss et. al, 1995: 6) and in this instance its importance is clear. Within institutions, and by extension within organizations that represent those institutions, not taking into account cultural roles in institutional or project

design can sometimes be detrimental. New institutionalism connects high transaction costs with weak institutions, of which weak organizations play an important role. Weak organizations can thus strengthen their engagements by looking more closely at socio-cultural issues.

An important impact of the project is the way in which NCWSC now engages local communities. All new projects, including ones in Mukuru, include workshops, meetings, surveys and engagements with the communities in order to sensitize and get information to ensure that all stakeholders are consulted before a project is embarked upon. This is the type of engagement that fits into the mould of **new institutionalism**. Not only is institutional change necessary, but change within organizations and individuals making up the institution is important. Taking into account aspects other than just purely economic factors, like social and cultural dynamics for example, are essential if policy, engagement and projects are to work.

#### **8.1.6 Project Specific Recommendations**

*Before* looking closely at the Triangle itself, it is important to examine what the company could have done better in the actual project, because successful running of projects will engender trust and a positive view of the utility. This in turn will help to engender trust in the Triangle and give the company power to positively affect and influence future relationships.

Firstly, community engagement and sensitization was one of the key elements missing from the Mukuru project. When dealing with sensitive communities like those in the informal settlements, it is important to get their input before entering their living spaces. Community engagement can take place in the form of community meetings, workshops and consultative meetings and use of community for labour and construction to promote a sense of ownership.

Secondly, the experience from the Mukuru model highlighted that there needs to be more transfer of knowledge from NCWSC to the people in the settlement so they know how to a) financially manage water points and b) construct *and* maintain pipes in a sustainable manner.

Finally, the Company cannot monitor the pipes and chambers round the clock. There needs to be collaboration between the company and the community where a system of community

policing be instated. This has a twofold effect. Firstly, if members of the community feel responsible for the pipes, they would be more likely to report vandalism. Secondly, potential criminals may be aware that members of the community are on the lookout for criminal acts and may be deterred from engaging in vandalism.

### **8.1.7 Last Notes on Mukuru**

The bulk metering project in the informal settlement of Mukuru represented a tangible engagement of the utility. Although mistakes were made, the utility went further than any had before, by designing a system specifically for the informal settlements. Persons from utilities in Uganda, South Africa and other African countries, have made learning trips to Nairobi to see how the Chamber System works, for possible replication or learning in their home countries. The Mukuru Bulk Metering project was the first engagement of the NCWSC in the informal settlements of Nairobi. It was a pilot project intended to be replicated in other settlements if met with success. Obstacles and problems have plagued the project and to date it has not been running smoothly. NCWSC has recognized that it needs to change the way it involves the community in these settlements and has initiated steps to overcome the problems that it encountered in the Mukuru undertaking.

## **9. Analysis: Bridging the Triangle: Stage 2**

This chapter seeks to answer the third research question: *How can NCWSC work with water vendors and the community in the informal settlements to improve water services provision?* The recommendations are driven by discussions held with community members, CBO's and water vendors. However, it begins by making two overall recommendations then focuses on the Triangle itself.

### **9.1 Company Specific Recommendations**

The following recommendations refer to what the company can do to build capacity which would in turn make for the smoother and more successful engagement.

***Department of Informal Settlements:*** Presently, NCWSC has two sociologists who work in the informal settlements. This is a progressive step and is a clear indication that the company has recognized that technical engagement is not enough to ensure the success of projects; the social aspect is equally important. The company now needs to go a step further and form a

department which is dedicated to the informal settlements. At present, the engineers who plan work in the informal settlements also work in other departments. Human resources are spread too thinly. Nairobi has the largest informal settlements in Sub-Saharan Africa. It therefore stands to reason that NCWSC should have a team that deals solely with the informal settlements. There has been discussion in the company about the formation of such a department, but talks need to be expedited and the formation of the department done quickly. One of the sociologists of the company has stated that it is not that the company does not have the capacity, but that there needs to be willingness to reorganize resources around such a department.

***Strategy for Engagement:*** Presently, NCWSC and AWSB in collaboration with WSP-AF, have developed a strategy for the company's engagement in the informal settlements. The goal is for the company to extend its water and sanitation provision in the informal settlements of Nairobi in a systematic and efficient way. It outlines the work, identifies some key challenges and introduces a sequence of actions to serve as a manual for the utility in its interventions. This is very important in that it supports the teachings of the **new institutionalism** as the new strategy takes into account the socio-economic dimensions of the informal settlements and promotes property rights through welcoming community or individually owned water and sanitation services infrastructure into its formal service network jurisdiction<sup>15</sup>. North (1995, 22) states that at the heart of development policy must be the creation of polities that would create and enforce property rights. Here the link to new institutionalism is clear. Additionally, the guiding principles of the strategy include social guidelines and the promotion of working in partnership with communities and local actors. It becomes apparent that in line with new institutionalism, the state effectuated institutional change but it was not enough. The organization has an integral role in *changing policy and strategy* to reflect institutional changes. NCWSC needs to adhere closely to the strategy in order streamline efforts which in turn would make engagement more effective.

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<sup>15</sup> Information gleaned from the strategy which has been recently developed by NCWSC and WSP-AF, but is still under review. It therefore cannot be officially referenced until full review is done.

## 9.2 Bridging the Triangle

This researcher strongly recommends that the company formulate future engagement through the lens of the Triangle and ensure that each relationship is considered. In this light, it is important to look at what the company has been doing to repair relationships along each side of the Triangle. Each section looks at what the company has been doing and makes recommendations for actions that should be either improved upon or initiated.

### 9.2.1 NCWSC/Water Vendors

*Recognition of and dialogue with vendors:* NCWSC recognizes that water vendors play an integral role in water services provision in the informal settlements. Officials at NCWSC admit that in the past, the water company had an arrogant and antagonistic view toward the vendors. One official admits that the first meetings between the company and the water vendors were acrimonious due to tensions felt between parties. Over a period of time however, grievances were aired more openly, and this led to an attitude of cooperation. However, as time went on, the company recognized that the water vendors were not the best way forward. One official says:

“We tried to push our agenda through X Association<sup>16</sup> and we made some headway with the vendors. But then we realized that the vendors are business people and their objectives were totally business oriented so they do not take the interest of the average guy to heart when they are designing their programs...At that point is when we figured out that it would be better to work with actual communities who are end users. Then we changed our strategy. We decided the best way was to discontinue or discourage dealing with individual vendors. This is why we want to deal with the CBO's and NGO's. We'll achieve much more in terms of service delivery if we do this.” Simon- NCWSC Official. Interview, January 16, 2008.

What therefore becomes clear is that while the water company recognizes the need to have water vendors on the ground in the informal settlements, they envisage a new kind of vendor in the form of CBO's. It is interesting to note that the feelings of the above official have been echoed across the water and sanitation community of Nairobi. They almost all agree that the role of the water vendors will be redefined in the future and they will eventually become licensed to CBO's. The view of the company should be made clear to the vendors however, as misleading them can only lead to further hostilities in the Triangle. Further, the utility needs to recognize that the water vendors are extremely important in helping them to achieve benchmarks for coverage. A 2007 report shows that NCWSC does not even achieve a score of

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<sup>16</sup> Association name changed.

“good” for coverage across Nairobi, and without the “SSIP’s in the form of kiosk operators”, the score drops even lower (Ministry of Water and Irrigation, 2007b:15).

The above view is corroborated by Kjellen and McGranahan (2006) who note that by involving “resellers and vendors as an integral part of the water system may help in the design (and implementation) of more comprehensive policies that better serve (poor) end-users” (pg 19). They further state that “recognizing resellers and vendors as official partners in the water system can also build trust and accountability” (ibid).

***Support of vendor associations:*** NCWSC now supports and encourages the formation of vendor associations. The company states that collective bodies will better represent the collective interests of the vendors. The vendors welcome this initiative, but the company needs to be careful that the vendor associations do not become so strong that they can overpower and intimidate the CBO’s. Vendor association and CBO’s must therefore be made to work together so that one group does not think it has more power than the other.

Additionally, there is more support for vendors in certain areas. In Mathare, there is a large community of water vendors who no longer have a source of income due to the mass disconnections. These vendors are aware that the only way to regain their livelihood is to cooperate with CBO’s to manage water points together. NCWSC should be forming the vendors into an association and preparing them by giving them tools and training to work with CBO's. Water vendors should be directly involved in capacity building exercises so that they feel that they are part of the new process of change, not left out on the sidelines. **New institutionalism** warns that interest groups play an integral role in the organizations which support institutions and must be considered during all processes (North, 1995). Thus, NCWSC needs to be fully aware that although the vendors in the informal settlements of Nairobi have lost some power, they still represent a strong interest group in the water sector and are their cooperation is necessary to ensure the successful implementation of projects.

#### **Needs to be improved/initiated**

***Licensing:*** NCWSC’s verbal support of the vendors is good but this needs to be taken a step further. Vendors need to be formalized through either licensing or performance contracts.



The company is presently in the process of working out the details of the licences. However, this process needs to be expedited as licences could be used to influence behaviours. For example, the contract can state that a vendor found vandalizing pipes will lose his licence for 2 years and be made to pay a hefty fine.

***Develop models for CBO's and vendors to work together:*** NCWSC, in conjunction with its NGO partners should be proactively designing models for the CBO's and vendors to work together. WSP-AF, one of NCWSC's main partners, works closely with NCWSC in getting models off the ground. Because the issue of CBO's and water vendors' cooperation is of high importance, it would be worthwhile for WSP-AF and NCWSC to develop models which would show how this sensitive partnership can work.

### **9.2.2 Water Vendors/Community**

***Use of NGO's to dialogue with both groups:*** Officials at NCWSC indicate that they do not have the capacity to engage the community as NGO's do. Thus, they have been using NGO's to dialogue with the community and water vendors. One of the sociologists from NCWSC opined that the vendors and community members feel comfortable telling the NGO's things that they would never mention to the water company. The company therefore relies on the NGO's to inform them of the feelings in the community and amongst the vendors. This sort of engagement should be intensified in the future. Importantly, such involvement fits perfectly with **new institutionalism** as it shows that the company recognizes the need to get the input of the community which it aims to serve and the group with which it aims to work.

***Workshops and meetings between CBO's and water vendors:*** NCWSC has been having capacity building workshops where vendors and members of CBO's come together to receive training. One company official talks with enthusiasm:

“We are even organizing stakeholder workshops where we involve the NGO's, where the stakeholders are mainly the community whether you are a direct consumer or vendor. We mix all of them and have one, two, three day workshops. We get their views on how they want us to get involved in bringing business to consumers. We recognize that the vendors help us distribute our commodity... so it is being managed in such a way that the vendors do not feel left out and they will see the company as a source of information and material help.”  
Ken- NCWSC Official. Interview January 10, 2008.

While the company has been making efforts to facilitate meetings amongst the different stakeholders, with particular emphasis on the vendors, community members and CBO's, efforts are not equal across the regions. In Mathare, both residents and vendors, from different villages in the settlements complain that the sociologists from the company visited once and never again. They claim to have never heard about capacity building workshops between the vendors and community. It is interesting to note that the above statement made by an official of NCWSC, contrasts with the statement made earlier by another company official who stated that they no longer want to work with water vendors (pg 49). It is therefore clear that efforts and views need to be coordinated and streamlined and there needs to be more communication and "follow-through" in all the settlements.

Importantly, the company has made progressive steps in the way it deals with issues and problems that arise. As mentioned in the discussion of the Triangle of Mistrust, there was a tense meeting between vendors and community members which ended in threats and hostility (see section 7.2.2). However, the company was able to intervene in a positive manner. One of the sociologists reminisces:

"The conflict between the community and vendors was a big problem! There was almost violence. The company took them for the study tour to show that other people had a similar problem but were dealing with it well. After that, we got them to agree to a forum. They were trained together on procurement, built things together. NCWSC took a positive role. Their key thing is to make the relationships sustainable. We need to be more present." Grace- NCWSC Official. Interview, December 28, 2007.

The study tour or "learning trip" represented an innovative and industrious endeavour on the part of NCWSC. The company, along with community members, CBO members and water vendors from different informal settlements, NGO's, WSP-AF, and so on, all went to Kisumu to observe that CBO's and vendors were able to work together. When some vendors and CBO members were interviewed months later, they admitted that it was this trip that changed their perspectives. An important point to note here however, is that learning must be carried back to the settlements. One woman from a CBO alliance in Mathare was sponsored by an NGO to attend the learning trip and the researcher recognized her when facilitating a focus group discussion. At one point during the discussion, members of the community voiced that they did not think the vendors would be willing to cooperate with CBO's or that a system of cooperation could work. The researcher asked the woman to tell the group what she had seen

in Kisumu, and only when she explained the cooperation that was taking place there, did the community members seem to believe that it was possible. It was therefore evident that the woman had not relayed the important points of the trip back to the community. This is unfortunate as attendees were supposed to use the trip to inform their communities.

### **Needs to be improved/initiated**

The accusations of tribalism and tribal control of water should not be ignored. Kenya is especially susceptible to tribal conflict, especially in the light of the political violence which erupted in December 2007 into January 2008. NCWSC is in a good position to positively influence this situation. Since the company plans to hand over the running of the chambers to CBO's which are presently being trained by the company and its partners, the company should stipulate that each CBO that wishes to manage a Chamber or water point should be made up of three or more tribes. This way, finger pointing at tribes will not be possible. Additionally, no one will be able to accuse the company of tribal preferences. **New institutionalism** advises that cultural and social aspects must be taken into account during policy and project creation (Preston, 1996:200). Such a view is very important here as it warns that ignoring socio-cultural issues, in this case tribe, may negatively impact engagement.

### **9.2.3 Community/NCWSC**

***Sociologists:*** One of the most important and tangible efforts that NCWSC has made is to dedicate two sociologists to the informal settlements. The executive director of Pamoja Trust, makes an observation:

“The sociologists bring alternative viewpoints to the company. Sometimes when we say something ourselves, it does not have an impact. But when it comes from the sociologists working within the company, it makes a big difference... They will always be needed because the relationship changes. I see the sociologists being the mediator and mediators are always needed between the very hard profit orientations of the company.” Jane Weru- Executive Director: Pamoja Trust. Interview, January 7, 2008.

The sociologists are the company's face in the informal settlements. They listen to grievances, offer advice, and take criticism, all on behalf of the company. They are involved in stakeholder meetings, workshops, discussions, negotiations and a host of other duties. However there are only two sociologists for the entire company. They are spread very thinly and the demand on them is exceedingly high. As the company seeks to increase its involvement in the informal settlements, more sociologists will need to be hired. From this

research, it seems clear that there should be one sociologist each for the large informal. The smaller settlements like Kiambiu, whose residents number 40,000 and below can be placed under the umbrella of a sociologist who is given approximately 5 settlements in her or his portfolio. Again, the link to **new institutionalism** is clear. NCWSC recognized that institutional reform was not enough to improve the company's performance. It needed to go a step further and engage sociologists to ensure that the social aspect of projects was being recognized. This was felt strongly after the dismal performance of the Mukuru Bulk Metering Project.

### **Needs to be improved/initiated**

**Licence CBO's:** Similarly to the SSIP's, the company needs to start providing the CBO's with either licences or performance contracts. There are CBO's which have been doing very well in terms of revenue collection and service delivery in the informal settlements. For example, the Kiambiu Safi Group has a membership of 180 households and successfully manages 4 water kiosks and ablution blocks (toilets). The group employs people from the community to clean and maintain their facilities and hires people to make the soap which they use for cleaning. They are able to pay wages and give members shares. During the last construction of a new facility, the group was able to contribute 750,000 KSh from its savings account. The group officials explain that one thing missing is the official recognition from the water company. The chairman of the group says:

“Because we are a well established CBO, they can give us a licence. If we get a licence, we can look for money and expand operations. Athi water recognizes Nairobi Water Company, so Nairobi Water Company should now licence us.” Patrick- Member of Water CBO. Group Discussion, January 15, 2008.

Newberry (2001) makes the case that the interests of the community and the utility are “partly in accord and partly in conflict”, but both parties need to cooperate to realize their investments (pg 30). In this case, both the utility and the CBO's are heavily invested in the business, so cooperation is needed where they look out for each other's interests through licensing and performance contract agreements.

## 10. Three Step Module

Through a close examination of at the data, a three step module for utility engagement emerges. This chapter further answers the third research question.

**Step One:** Company Readiness. The company needs to ready itself to deal with the informal settlements. At the moment the sociologists are worked to capacity. The formation of a department of informal settlements is essential to equip the company, capacity wise, to deal with multiple issues in the informal settlements. Personnel, monitoring and evaluation systems and both technical and financial staff need to be involved if engagement is to be effectively coordinated.

**Step Two:** The second and most important step is that projects and plans should be formulated through the lens of the Triangle, or at least with the triangle at the forefront of policy creation. Officials at NCWSC and members of the NGO community do not seem to recognize the importance of CBO's and water vendors collaboration. Vendors have the money, power and resources to vandalize CBO's to the point of destruction. Various heads of NGO's strongly state their reluctance to work with vendors and one NGO head went so far as to say that he is "not at all concerned" about the vendors. Vivian Castro, a Water and Sanitation Analyst at WSP-AF questions this approach and asks why it has to be either the vendors or CBO's. She asks, "Why can't it be both?" The present mindset of NCWSC and the NGO community may lead to problems in the future and instead of helping bridge the mistrust in the Triangle, will only serve to worsen the situation. Instead, the NGO's and NCWSC should formulate engagement with the Triangle in mind. This would ensure the smoother implementation of projects in the informal settlements.

**Step Three:** Project Implementation. The researcher contends that only after the first two steps are adhered to, should projects be implemented. In the first stage, the company prepares itself adequately to take on the challenges of the informal settlements. In the

second stage, in adherence with the new institutional school, socio-economic dimensions and cultural aspects of involvement are closely scrutinized. Only after the first two stages should projects be implemented.

## 11. Conclusion

NCWSC has gone further than a utility ever has in Nairobi, and has initiated a positive, albeit rocky beginning for engagement in the informal settlements. *New Institutional Economics (NIE)* believes that economies are made up of intricate and complex social structures which must be analyzed taking relevant information about sociology, politics, history and culture into account when creating policy. Thus, it was not and *is not* enough for NCWSC to engage technically. There are historical, social and cultural issues, in the form of the Triangle of Mistrust which need to be addressed if engagement is to be fruitful. **The investigation into NCWSC and its quest to provide improved water services provision in the informal settlements of Nairobi supports the school of New Institutional Economics.** The state needs to be involved in institutional change, and it is only this change which can foster further growth in the sector. However, aspects relevant to societal interest must be present in institutional overhaul not only at the level of the institution, but also in organizations which make up part of the institution. The researcher believes that if NCWSC starts creating policy with the Triangle of Mistrust in mind and follows the three step module, engagement in the informal settlements will run more smoothly in the future.

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## **Appendix A: Interview Guides**

### **Appendix A1**

#### **Interview Guide**

#### **Water NGO's/ Key Informants**

Briefing: This study is being carried out for my Masters thesis at Lund University. Before the water reforms, the small scale independent providers (SSIP's) were responsible for most of the water delivery in the informal settlements. Now, NCWSC is engaging in the settlements and I wish to find out if and how the company has been working with SSIP's in its current engagement in the informal settlements.

#### **Questions:**

Please tell me about your NGO/Organization and what its overall role in Kenya has been to date.

What have been your major engagements in the informal settlements? Which settlements specifically have you been engaged in?

Before the water reforms and even now, water vendors play a big role in water delivery in the informal settlements. From what you have seen, what has that role involved? How important is it? Please talk about before *and* after the reforms.

Before the water reforms, what role did the utility play in the informal settlements?

Now, after the reforms, what role does the utility play?

Were the water reforms necessary? Why, why not?

With the entrance of NCWSC on the scene in the settlements, what is the role of the NGO's/your organization? How has the role changed in terms of before and after NCWSC started engaging in the informal settlements?

What was the relationship like between the water vendors and the utility before the reforms, from your "objective" standpoint?

What is the relationship like now?

From my experience, I have observed that NGO's sometimes act like a middle-man, go-between, peace-maker between NCWSC and the SSIP's. Do you agree with this? Can you tell me about this in come detail?

From my experience, it seems as though there is some hostility that exists between SSIP's and the utility? Do you agree with this? Why does it exist?

How do water vendors view the utility now?

From what you have seen, what is the utility doing to improve relations?

Has the utility been doing better in the informal settlements as time progresses?  
Are they doing a lot?

What more can the utility do *both* in the informal settlements and with the water vendors?

How important or unimportant is it for the utility and vendors to have a good working relationship?

Tell me about the use of CBO's in water services in the informal settlements.

How did the use of CBO's come to pass. Are they working with the vendors?

Do you have a preference as to which groups you prefer to work with ie vendors or CBO's?

What does the future look like for the vendors and the utility's working relationship?

## **Appendix A2**

### **Interview Guide**

#### **Officials of NCWSC**

Briefing: This study is being carried out for my Masters thesis at Lund University. Before the water reforms, the small scale independent providers (SSIP's) were responsible for most of the water delivery in the informal settlements. Now, NCWSC is engaging in the settlements and I wish to find out if and how the company has been working with SSIP's in its current engagement in the informal settlements.

#### **Questions:**

Can you tell me briefly about the water reforms that led to the formation of NCWSC?

What have been some of the overall successes that NCWSC has accomplished since the start of the company?

NCWSC has started to engage in the informal settlements. Why is that?

Should NCWSC be engaging in the informal settlements? Why? Why not?

What policies are being put in place to improve services in the informal settlements?

Before the water reforms and before NCWSC started entering the informal settlements, who provided water there?

Where did the vendors get their water?

Do you see water vendors as a different kind of customer with special needs or are they treated like usual customers. Are the rules same or different for them?

Since the start of the company, what are some of the challenges that NCWSC has encountered when engaging in the informal settlements? Please also talk about the challenges when dealing with water vendors.

From my time in the field, I see that there seems to be a sort of mistrust between the water vendors and the utility. Why is that?

There is a working relationship now between the utility and the vendors. How did that come about? What is the nature of the relationship?

How is the relationship working out?

Is anything being done to promote a good working relationship between the utility and the vendors? If yes, what? If no, why not?

Please tell me about any partners or other organizations that are helping you in the informal settlements.

What is the nature of the partnership? How important is that relationship?

Do you think that with the expansion of piping networks in the settlements that the role of water vendors will become obsolete or will they always be necessary? Please give reasons for your opinion.

Can you give examples of when there was a challenge with the water vendors that was overcome or dealt with well?

Can you give examples of when there was a challenge with water vendors that could have been handled better?

Can the different regions and vendors operating in those regions come up with rules of engagement together that are specific to that region? Or should there be a blueprint engagement?

In your region, what is better for engagement with vendors? Dealing with them as individuals, or under an umbrella organization? From your personal experience, which is better?

Does your region have the institutional capacity to handle informal settlements, in terms of staff, special issues of the settlements, transport, or do you have the *ability* to build the capacity?

NCWSC has the monumental task of making water services provision available to some of the biggest and most densely populated informal settlements in Sub-Saharan Africa. What do you think other utilities can learn from your company? Please also talk about the evolution of the relationship between the utility and SSIP's.

What have you learnt from other utilities?

What can be done better in the future on the side of the utility to ensure a good working relationship?

**Additional Questions:**

Commercial Managers: Ask questions about finances. Do water vendors in the informal settlements contribute to the profits of the company? How much income comes from the vendors?

Engineers: Ask questions about the design needs and challenges in the informal settlements and how vendors help or worsen these challenges.

**Appendix A3  
Discussion Guide  
Focus Group Discussions  
Water Vendors**

Briefing: This study is being carried out for my Masters thesis at Lund University. Before the water reforms, the small scale independent providers (SSIP's) were responsible for most of the water delivery in the informal settlements. Now, NCWSC is engaging in the settlements and I wish to find out if and how the company has been working with SSIP's in its current engagement in the informal settlements.

**Questions:**

Before the water reforms, before NCWSC came into the settlements, what was the water business like?

Before the reforms, where did you get water? How did you provide it (kiosks, trucks etc).

Where do you get water from now?

Before the water reforms, what was your interaction like with the utility, Nairobi City Council, at that time.

What is your relationship like with NCWSC?

From attending meetings etc, I feel that there is some mistrust between vendors and NCWSC. Do you agree? Why? Why not?

Why do you think NCWSC is in the settlements now?

Do you think their presence/involvement is a good or bad thing? Why?

Since NCWSC entered, has business gotten better, worse or is the same? Please give details.

Please tell me about some of the challenges you face as water vendors.

Does NCWSC offer help or assistance to you, to help with problems that come up? For example, burst pipes, vandalism etc.

Please tell me about some of the challenges you face with NCWSC.

How are the challenges dealt with by NCWSC and by you?

What do you think the company is doing well in terms of ensuring a good relationship with you?

What specifically do you think the company can do better?

What do you dislike about what the company is doing?

On your side, do you think since you started collaborating with the utility that the relationship has gotten better or worse? Why?

How has business changed since the involvement of NCWSC in the informal settlements?

What is your relationship like with the community?

How do you feel about the involvement of CBO's in the water business?

Are you working with the CBO's?

**Appendix A4**  
**Discussion Guide**  
**Focus Group Discussions**  
**CBO's/ community**

Briefing: This study is being carried out for my Masters thesis at Lund University. Before the water reforms, the small scale independent providers (SSIP's) were responsible for most of the water delivery in the informal settlements. Now, NCWSC is engaging in the settlements and I wish to find out if and how the company has been working with SSIP's in its current engagement in the informal settlements.

Please tell me about the present situation of water here.

Tell me about your CBO's. Are any of you in the water business?

Tell me about your relationships with: individual water vendors, Nairobi City Council and NCWSC.

Please tell me some of the challenges you have had dealing with the water vendors.

Please tell me about some of the challenges you have had dealing with NCWSC.

Has anyone here ever worked as an individual vendor? Please tell me about that.

What are some of the benefits of belonging to a CBO?

Do you have water vendors belonging to your CBO's?

If your CBO deals with water, how did you get training on the laying of pipes and so on? Do you feel that you are sufficiently trained?

How does NCWSC help you? Are they doing enough?

What can NCWSC do more to help you?

Should individual vendors be encouraged to join groups? How can the two work together?

How would you like to the water situation here ten years from now? What can be done to get to that point? What can government, vendors, CBO's, NCWSC do?



## **Appendix A6**

### **Interview Guide**

#### **Officials at Athi Water Service Board**

Briefing: This study is being carried out for my Masters thesis at Lund University. Before the water reforms, the small scale independent providers (SSIP's) were responsible for most of the water delivery in the informal settlements. Now, NCWSC is engaging in the settlements and I wish to find out if and how the company has been working with SSIP's in its current engagement in the informal settlements.

Please tell me about Athi Water Service Board and the reforms that led to the formation of the Board.

What have been some of the successes of the board since its inception?

Please tell me about some of the major challenges that you face as a water board.

Please tell me about your relationship with NCWSC. Are you happy with their performance?

What is the policy of Athi Water when it comes to the informal settlements? Do you have targets, benchmarks etc?

At the World Bank Forum, your MD talked about tanks donated to schools. Can you tell me about that and similar initiatives?

Does the board have a preference when it comes to the water company working with individual vendors and CBO's, or is that totally up to the company?

Does Athi water advise NCWSC on policy etc?

What are your expectations of NCWSC?

What, in your opinion have been some of the successes of the water company to date?

What can the company do better in the future?

Are the informal settlements a priority?

What is your outlook for the informal settlements?

## **Appendix B: 7 Stages of an Interview Investigation**

### **Steinar Kvale**

**Taken directly from: Kvale, Steinar, (1996) *Interviews: An Introduction to Qualitative Research Interviewing*, Sage Publications, USA. Pg 88.**

#### **Stage One:**

Thematizing- Formulate the purpose of an investigation and describe the concept of the topic to be investigated before the interviews start. The *why* and the *what* of the investigation should be clarified before the question of how-method- is posed.

#### **Stage Two:**

Designing- Plan the design of the study, taking into consideration all seven stages of the investigation before the interviewing starts. Designing the study is undertaken with regard to obtaining the intended knowledge and taking into account the moral implications of the study.

#### **Stage Three:**

Interviewing- Conduct the interviews based on an interview guide and with a reflective approach to the knowledge sought and the interpersonal relation of the interview situation.

#### **Stage Four:**

Transcribing- Prepare the interview material for analysis which commonly includes a transcription from oral speech to written text.

#### **Stage Five:**

Analyzing- Decide on the basis of the purpose and topic of the investigation and on the nature of the interview material, which methods of analysis are appropriate for the interviews.

#### **Stage Six:**

Verifying- Ascertain the generalizability, reliability and validity of the interview findings. Reliability refers to how consistent the results are and validity means whether and interview study investigates what is intended to be investigated.

#### **Stage Seven:**

Reporting- Communicate the findings of the study and the methods applied in a form that lives up to scientific criteria, takes the ethical aspects of the investigation into consideration, and the results in a readable product.

## Appendix C: Visual Aids

### C1: Low quality pipes<sup>17</sup>



<sup>17</sup> Photo Courtesy WSP-AF photo database.

## C2: Illegal Spaghetti Connections<sup>18</sup>



<sup>18</sup> Photos courtesy NCWSC photo database.



**C3: Low quality pipes which are susceptible to breakages, pass through sludge and solid waste<sup>19</sup>.**



<sup>19</sup> Photo courtesy WSP-AF photo database.

## C4: Water Kiosk<sup>20</sup>



<sup>20</sup> Photos courtesy WSP-AF photo database



**C5: Chamber System housing 26 connections.<sup>21</sup>**



<sup>21</sup> Photos courtesy NCWSC and CAS Consultants.