The University of the Western Cape

Faculty of Economic & Management Sciences

School of Government

Exploring official perceptions of the constraints in providing water services to peri-urban settlements in Uganda: A case-study of policy formulation in contemporary Bwaise III Parish.

A mini-thesis submitted in partial fulfilment of the requirements for the degree of Magister Public Administration in the School of Government at the University of the Western Cape

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KEYWORDS

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ABSTRACT

This study focuses on the contradictory ways officials frame the problem of providing water services in Kampala with specific emphasis on the debates about framing of key factors that constrain delivery. Perceptions about and framing of policy issues implicitly suggest the causes of problems. Policy scholars acknowledge that formulating policy is "messy" and that it is about values, and not as "evidence-based" as is often assumed. Using a social constructionist perspective that stresses that perceptions tell one how people define situations, this study demonstrates the often contradictory ways that state officials see public problems. Drawing on debates about rational and muddling-through approaches, the study uses thirty structured questionnaires and several semi-structured in-depth interviews to explore the narratives of government officials regarding policy formulation in water delivery. The thesis found that almost all officials see rapid growth in population density in informal areas coupled with unplanned settlements as the single biggest combined issue inhibiting progress. Officials favoured market-related solutions even though their diagnosis of the problem suggested more concerted and comprehensive public planning of urban development.

DECLARATION

I declare that *Exploring official perceptions of the constraints in providing water services to the Peri-Urban settlements in Uganda: A case-study of policy formulation and implementation in contemporary Bwaise III Parish* is my own work and that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Mirembe Faridah Date……..

Signature……..……..

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LIST OF ABBREVIATIONS/ ACRYONMS

ADB	- African Development Bank
DEA	- Directorate Environmental Affairs
DWD	- Directorate Water Development
DWSC	- District Water and Sanitation technical Committees
ESA	- External Support Agencies
FSSD	- Forestry Sector Support Department
IM	- Incremental Model
IFC	- International Finance Corporation
IWRM	- Integrated Water Resource Management
KCCA	- Kampala Capital City Authority
MDGs	- Millennium Development Goals
MLG	- Ministry of Local Government
MWE	- Ministry of Water and Environment
NEMA	- National Environmental Management Authority
NGO	- Non- Governmental Organisation
NFA	- National Forestry Authority
NWP	- National Water Policy
NWSC	- National Water and Sewerage Corporation
PPIAF	- Public Private Infrastructural Advisory Facility
POs	- Private Operators
PSP	- Private Sector Participation
RCM	- Rational Comprehensive Model
UBOS	- Uganda Bureau Of Statistics

UNDP	- United Nations Development Programme
UN-HABITAT	- United Nations- Habitat
WB	- World Bank
WESPR	- Water and Environment Sector Performance Report
WHO	- World Health Organisation
WMD	- Wetlands Management Department
WSS	- Water Supply and Sanitation
WUP	- Water Utility Partnership

CHAPTER 1: INTRODUCTION AND BACKGROUND

Introduction

According to UN-Habitat (2010) sub-Saharan Africa faces the most severe water challenges of any region in the world, with more than 1 in 3 Africans residing in urban areas lacking access to adequate water services. These challenges are more so in peri-urban settlements where 60% the sub-Saharan population now live. Challenges of water provision are more immediate and visible in urban settlements, despite the characterization of the water problem as being a rural problem. The provision of water services to the poor has proven to be an enormous struggle for governments in most countries in Africa (Bayliss and Adam, 2012).

Uganda, as this thesis will show, emblematizes these problems with the second highest percentage of urban households – 93 percent -- in Sub-Saharan Africa not connected to piped water in 2004 (Dagdeviren & Robertson, 2009:4). More than 12,000 children die every year from diarrhoea caused by unsafe water and poor sanitation in Uganda where 25 million out of a population of 36 million lack sanitation (WaterAid website, accessed Sept 2013). "More than 40% of people living in the greater Kampala area live in unplanned settlements. Of those residents, only 17% have access to piped water" (http://water.org/country/uganda/. Accessed December 2013). In informal urban settlements within a few kilometres of central Kampala, residents can pay up to three times more for water sold by vendors than residents living in planned urban communities.

Although Uganda is mandated by its 1995 Constitution of the Republic, which stipulates the right to water supplied by government as the "responsible" agent for delivering it", in 2013 the

challenges remain enormous. While the National Water and Sewerage Corporation (NWSC) has tried to provide formal water services to peri-urban areas, such services are often unreliable, and where they exist they are oversubscribed. Consequently, many residents purchase unsafe water from vendors, private kiosks or get it from springs (Pangare and Pangare, 2008). At the same time, the International Finance Corporation (IFC) has promoted privatization and outsourcing of water by persuading NWSC to undertake small scale privatizations of water in small towns (IFC, 2013; Hirn, 2013). Small scale providers play a significant role especially in poverty stricken informal settlements where the majority of the population is not employed but dependent on informal trade and casual labour. Vendors however often see state efforts to supply water as encroaching on their turf. Vendors also often vandalize the public system (Gandy, 2006).

The problem of water provision in Uganda (and elsewhere) has been framed by scholars as a set of factors including too rapid urbanization, unplanned settlements, excessively bureaucratic local government structures, information gaps between policy makers, service providers and urban poor communities, and skewed land tenure system and so on (Kulabako, Nalubega, Wozei & Thunvik, 2010). According to Kulabako et al. (2010) provision of water services in Kampala peri-urban areas has been hindered by the following constraints: limited financial resources, poor land tenure system, physical and technical, dense population, inadequate infrastructure. Yet the story is more complicated at this thesis will show.

This study focuses on the ways officials frame the problem of providing water services in Kampala with specific emphasis on the debates about framing of key factors that constrain delivery. Policy debates more recently acknowledge that formulating policy is "messy": it is about values, and not as rational or evidence-based as is often assumed (Hudson and Lowe, 2009). Perceptions about and framing of policy issues are very important in policy making and

implementation (Hudson and Lowe, 2009). A social constructionist perspective stresses that perceptions tell one how people define situations and that reality is "constructed" because "reality" is not self-evident nor is it "out there" (Walliman, 2006: 28). Social constructionists reject the notion that we can describe a pre-existing 'reality'. Ways of framing and formulating issues "constitutes a specific way of being engaged with the world and relat(ing) to it" (Feint and Oels, 2005: 164). Drawing on these insights, the study uses structured and semi-structured in-depth interviews and a questionnaire to explore the narratives of government officials regarding policy formulation and implementation of water delivery.

Back ground to the study

Kampala is Uganda's capital and its largest city located 45 km above the Equator and 10km north of Lake Victoria. In 2012 its population was 1.7 million and if the city's transient population is taken into account, the true population of Kampala is about 2.3 million (UBOS, 2012). Kampala like most cities in sub-Saharan Africa is experiencing explosive population growth particularly in peri-urban settlements where almost two-thirds of the population reside and where access to services is very poor (Kulabako, et al, 2004).

Since 1970, Kampala has expanded in size and population from 330,000 to 1.5 million persons in 2009 (UBOS, 2008); while the average population density is 6,100 persons per km² . Slum areas have five times more people: 30,000ppkm² (UBOS, 2008). The city's capacity to provide adequate water services to the increasing populations especially those living in peri-urban areas have been exceedingly limited (Kulabako et al, 2010, UN-Habitat 2007).

The Kampala district has five administrative subdivisions and 99 parishes. Each parish in turn has zones -- the smallest social and political unit of the local government structure. The five

divisions of Kampala are: Kampala central division, Kawempe division, Nakawa division, Makindye division and Rubaga division. Kawempe, the study site, is the biggest and the most densely populated among the five divisions constituting Kampala City. It is also the poorest of the city's five divisions (Golooba, 2003). Kawempe division sub-county is made up of nineteen (19) Parishes including, Bwaise I, Bwaise II, and Bwaise III.

The population in the area mainly supports the opposition party (Lule, 2014) and has in 2011 threatened to boycott elections. A veteran administrator in Kampala City Council (KCC) observed: 'Kampala attracts everyone. There is a lot of incoming migration so there's always a mismatch between service delivery and demand' (anonymous with KCC official, Finance and Planning Department, May 2011, cited in Lambright 2012).

Bwaise III parish is an informal settlement. It is a low laying area, unplanned and a densely populated with low-income residents. The study area Bwaise III Parish is a typical peri-urban area located a mere 4km from the Kampala CBD; occupying an area of 57 Ha with a population of 15,015 (UBOS, 2008). It is accessed via Bombo road which links the area to the northern bypass. Bwaise 111 parish in turn comprises of five zones namely, Kalimali, Bukasa, Bugalani, St. Francis, Katogo and Kawala.

According to Muinde (2013), the parish dates back to 1920 when the king allocated land rights to his loyal subjects. Historically people living around the city were farmers. But even in 2010 as many as 35% of urban dwellers were engaged in farming (Prain, et al., 2010). It has one of the highest population growth rates in Kampala with an annual average rate of 9.6% and Household size closer to the rural standard of 5 persons (Prain et al. 2010: 18). The Parish has about 3000 *registered* households. The area leadership is under control of the Parish Chief who reports to the Division Chairperson (Mayor) at Local Council IV level.

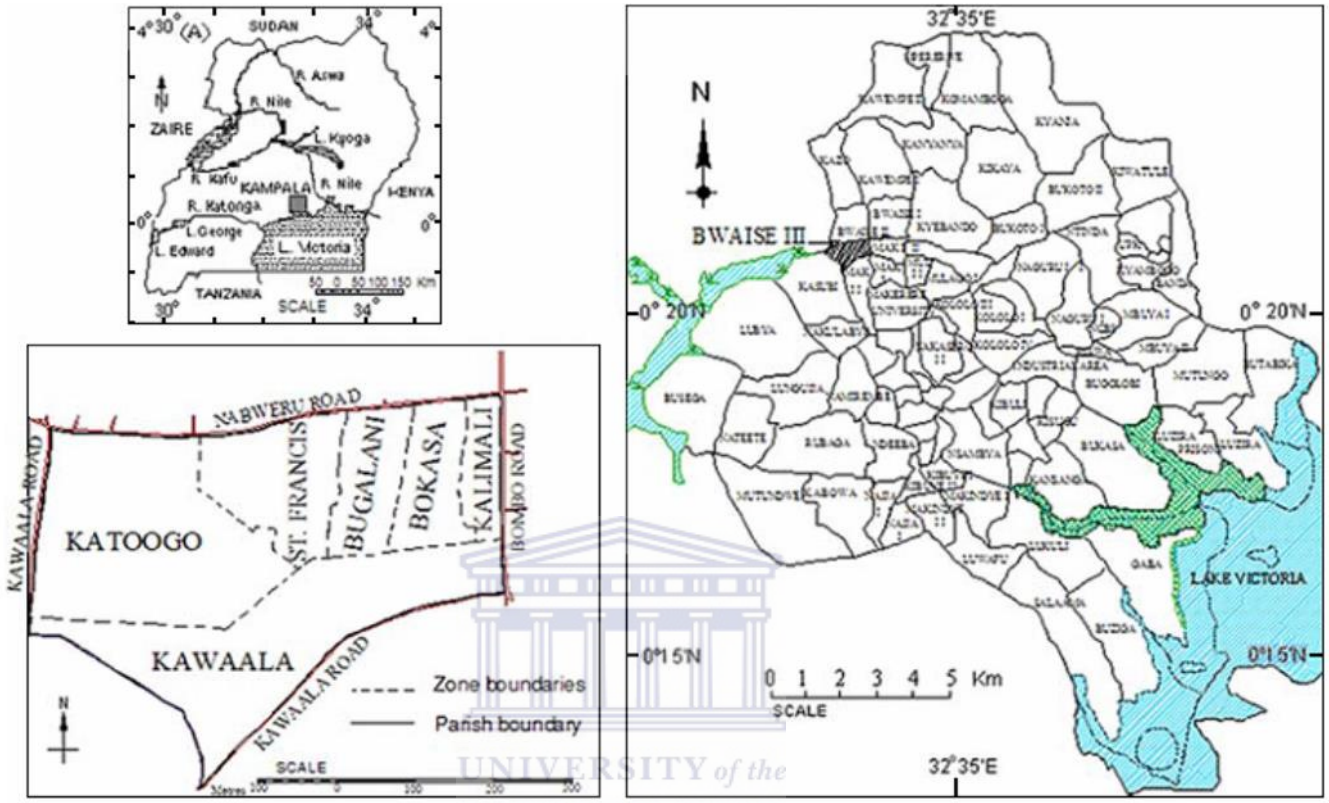
The Parish has about 20 private and five public water standpipes scattered in the area which makes it inadequate for the locals to access water (Gard and Torstensson, 2006). A study by Kulabako, et al (2010) indicated that alongside standpipes.

Figure 1 Water point

Figure 2 Water spring

Springs are the second mostly used source of water in Bwaise111 parish and that about 40% of residents' use of springs in Kampala's informal settlements (AquaConsult, 2002). Nevertheless, studies show that 80% of the springs have faecal contamination (Haruna et al, 2005; Howard et al, 2003; Nsubuga et al, 2004). This means that lives of the residents in the settlement are at risk for diseases such as diarrhoea, dysentery, typhoid, and other related illnesses. On average per capita usage is around 16 litres per day while those who have piped water on their properties sell water to neighbors for a few us cents (Kulabako et al., 2010: 237).

Figure 3: Map of Uganda showing location of Kampala District (A), location of Bwaise III Parish in Kampala District (below right) and administrative zones in Bwaise III Parish (lower left)



Source:Kulabako,2004

Motivation of the Study

The study is motivated by the researcher's interest in policy formulation and implementation as a theoretical and practical question and also my interest in seeing how poor formulations might hinder effective delivery. As many writers after Lipsky (1984) have argued policies are mediated by local administrators and street level bureaucrats working within interpretative spaces.

The aim of this study is to map and explore the diversity of perceptions within the "interpretative space" government and service providers about the constraints facing water services in peri-urban settlements. The broader aim is to shed light on the importance of policy formulation as an ingredient for implementing water services to the general public. This study seeks to contribute to the body of knowledge on contested narratives around water services delivery, social construction of constraints by government and or service providers in extending water services to the peri-urban settlements, especially in the case of Bwaise III Parish. It is hoped that the study will contribute to a deeper debate on and a review of water sector policies.

The study is informed by the literature which argues that the definition and formulation of problems -- understanding of causes, narratives and context as well as the attribution of blame -- is critical to proposed solutions (Hajer, 1993; Anderson, 2006; Feint and Oels, 2005). Public policy problems such as water supply are in the words of Feint and Oels:

> not self-evident, they imply complex and systemic interdependencies, they often build up over long time intervals and large spatial areas. In the environmental policy arena problems are typically not defined in common sense language, but in expert terms of reference…. environmental problems are 'socially constructed', building on expert language and concepts, research practices and available technology. (2005: 162)

The specific objectives include identifying what officials see as the constraints in providing water services to Peri-Urban settlements in Uganda. The thesis seeks to rank the different constraints identified by officials in providing water services to peri-urban settlements. Finally, I will explore the ways blame is attributed by local government and service providers (Nathanson, 1999).

Delivery of water services to peri-urban settlements is generally seen a deepening urban crisis in the cities of the South (UN-Habitat, 2010). Inadequate delivery of water is the primary cause of various diseases including diarrhea, one of the leading killer diseases of children under the age of five (WHO, 2009). The international community came together to advance the eight Millennium Development Goals (MDGs) to focus on the many serious problems yet to be solved in developing countries and to set firm agenda to which would drive new efforts to improve human and economic development in that way eradicating poverty by 2015. One of the main goals was halving the proportion of people without sustainable access to safe drinking water by 2015 (UNDP, 2003). Although progress has been made towards provision of water in many developing countries and more particular in the peri-urban areas, there is still a long way to go (UN-Habitat, 2010) and there have been reversals as well as major protests around service delivery and especially the attempt by major donors and international financial institutions to see water problems as a problem of a failure to commodify and privatize water (McDonald and Ruiters, 2012).

There is substantial disagreement among scholars about understanding and framing the water issue in general. Some see it as a physical scarcity problem (Turton, 2006) while others reject the scarcity problematic (Swyngedouw 2010). A number of authors (Hogrewe, 1993; Kariuki, 2003; Kulabako et al, 2010; McConville, 2014; Mwanza, 2001; O'Meally, 2011; Norstrom, 2007; UN-

Habitat, 2010) argue that the provision of water services to the peri-urban settlements has been constrained by a complex of factors including; limited financial resources, cost recovery, weak public sector coordination at National and Local levels, planning and implementation of activities, and the challenge of maintaining installed water points. Others like Lambright (2012) see poor governance and factional politics as major factors. Kjellen (2006: 122) argues that cities in the South are characterized by very poorly functioning networks mains because of "spaghettization" that is "thinning out of the network" through the informal privatization of water mains by thousands of households and water vendors who illegally connect their own thin pipes to the mains.

The factors above are a part of a paradox that complicates understanding the delivery of water and sanitation services to the urban poor that can only be dealt with through profound sense of the ways inequality is embedded in the city as well as how collection action problems are generated (Hogrewe, 1993; Harvey, 1996; Kjellen, 2006).

Research Design and Method

According to Babbie and Mouton (2001), the research design is a blue print or outline for conducting the study in such a way that maximum control was exercised over factors that could interfere with the validity of the research results. It is also a plan on how you intend to conduct the research. Considering the relevance and importance of the research topic, the researcher chose to use qualitative approach for this study as it is passionate about an insiders' perspective on a particular social phenomenon (Babbie and Mouton, 2001).

Due to paucity of research in this area, the study was largely exploratory and anticipated to attract further research in understanding perceptions of stakeholders in the water sector in Uganda regarding the challenges of water services delivery particularly in the peri-urban areas.

According to Babbie and Mouton (2001), the qualitative research paradigm is a generic research approach with its departure point the insiders' meanings and perspective on social action. Qualitative researchers therefore attempt always to study human action from the perspective of the social actors themselves. This approach was used because it allowed the researcher to identify issues from the perceptions of the study participants and to understand the meaning and interpretations that they give to behavior, events and objects (Babbie & Mouton, 2001). In this study, in-depth interviews were conducted on the populations that informed the study, with the chosen case study being a peri-urban low-income settlement on the outskirts of Kampala city.

Bwaise 111 parish was selected as the case study to understand what officials perceive to be constraints in providing water services to a very challenging peri-urban area. A case study according to Yin (1994:16) is a careful method of collecting information or evidence about a certain unit of analysis which may include individuals, groups, communities, organizations

etc. Leedy et al (1997: 157) concludes that a case study is a type of qualitative research whereby the researcher "explores a single unit or phenomenon, bounded by time and activity and collects comprehensive information by using a selection of data collection process during the maintainable period of time."

The study targeted 30 government officials who were selected using purposing sampling technique. Purposive sampling is an acceptable kind of sampling for special situations; it uses the judgment of an expert in selecting cases with a specific purpose in mind (Neuman, 2003). The officials included senior officials, technical and policy implementation staff for water services in their respective institution including the town clerk, city officials, the Ministry of Water and Environment and the NWSC branch manager and his staff.

The researcher secured authorization letter from the University of the Western Cape Senate granting permission for the study and introducing the researcher and the researched. The researcher approached her known contact who is the branch manager of the pro-poor unit branch. The manager identified the officials who would participate in the study and referred me to others in the other institutions who would help with much needed information.

The methods used to collect data to address the research objectives of the study where structure interview and questionnaire. These were used because they gave the respondents time to think and respond in what they perceived as constraints in providing water services to Bwaise 111 parish.

The structured interviews were used to solicit information from the respondents. It is a very good and most powerful way of accessing people's perceptions, meanings, and definitions of situations and construction of reality (Leedy, 1997). This was appropriate as it allowed the interviewees to freely explain their responses and also the interview to do thorough probing on the subject matter. One on one interviews were conducted with the help of a tape recorder,

information was captured and transcribed to capture the respondents' perception, knowledge and experience about the different constraints that they face in providing water services to Bwaise 111 parish.

The researcher used a questionnaire to collect data that was needed to answer the necessary questions. It is a printed self- report form designed to produce information that can be obtained through written responses of the subjects (Burns & Grove (1993:368). The questionnaire was structured to ensure that the precise research objectives are focused on and answered and that correct and relevant data for analysis is collected (Ibid: 368). The questionnaire consisted of 30 main questions and sub-questions. The questions posed covered there topics including, the background and the problem definition, constraints and solutions to the constraints.

According to Wegner (2007), there are some principles considered when constructing a well-structured and unconcealed questionnaire to ensure that correct, unbiased and applicable data of an acceptable type is collected, which corresponds with the research objectives that must always be clearly defined and documented. Questionnaire construction requires that consideration should be paid to:

- the categories that the questions are to be part of,
- the presentation, for example the order of the questions, and
- The structure and phrasing of the questions.

The researcher will ensure that certain considerations will be put in place to ensure that the design of the questionnaire is measured;

- ambiguous words and language should be avoided
- questions should be short and simple
- instructions should be clear

- the questionnaire should not contain technical jargon
- The questions should focus on the area of the research topic.

The choice to use the questionnaire was based upon the following advantages:

- There is less bias as they are presented in a consistent manner
- They consume less time and energy to administer

Limitations of the study

One of the main limitations that the researcher experienced was the time factor with respect to the key informants. The research was done towards December holidays; several key informants were either busy wrapping up work or were already on leave. It was not easy to get hold of those officials that were on leave but through referrals from already interviewed officials I was able to get hold of them. Money was also a key factor, the research was supposed to be done earlier than December but because I didn't have money to travel back to Uganda to collect the data.

Ethical clearance from an ethics committee that approves all research was obtained before the research was undertaken, in addition, permission from the NWSC, KCC, and the Ministry were obtain so as to conduct the research in those institutions and interview the staff. Consent was obtained from all the informants who participated in the study. They were explained about the study, its objectives and significance. They were explained about confidentiality and their right to walk away at any time during the session. Their participation was voluntary.

The thesis has five chapters. The first chapter introduces the study to the readers. It provides the background of water delivery services in Uganda, the research problem, Aims of the study and the specific objectives of the study, significance of the study, research questions. It

also discusses and clarifies a number of terminologies and concludes with the structure of the research and the final summary. It then guides the reader into the next chapter.

Chapter 2 will discuss the conceptual framework and the literature review. The researcher discussed the various forms of legislation that govern the water delivery services and goes to explore the various approaches of policy formulation. These approaches are discussed in details with the researcher discussing the policy cycle in the process of policy formulation, models that guide policy formulation and concluding with a summary. The reader was guided into the next chapter.

Chapter 3 is an overview of the policy and institutional framework for water service provision sector. The framework is based on several policy reforms since the mid-1990. The water service provision is a key sector in Uganda and is provided for in the 1995 constitution of the republic of Uganda, which stipulates the right to water and specifies government as an organ responsible for delivering it. It was followed by a summary that guided to the next chapter.

Chapter 4 documents the empirical research findings, and does an analysis and discussion of the findings. I refer back to the literature consulted. Chapter 5 is the conclusion of the study findings and made recommendations on the study.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Introduction

This chapter will focus on debates in the literature on policy formulation and implementation.

This chapter will be divided into two parts. Part one discusses the conceptual frameworks and the literature review for the debates on policy formulation and implementation. It will discuss the common models for understanding how policies are made, these include; the Rational Comprehensive Model (RCM)/top-down and the Incremental Model (IM)/ bottom-up model. I will explore debates on how useful these models are for analyzing policy making; specifically the contested ways in which policies are framed. Moreover I will outline the social constructionist method and its relevance for understanding policy as "narratives". Part two looks at the environmental and water services policy literature and how it applies to informal settlements in the South and in Uganda. Part two of the chapter will review of the underlying debates in delivering water services to the peri-urban settlements and it will look at the environmental and water services policy literature and how it applies to informal settlements in the South and in Uganda.

Social construction of problems in policy

In general, policy refers to a purposive course of action that an individual or group regularly follows when dealing with a problem (Anderson, 2006). Eulau and Prewitt (1973, 465) define a policy in a more formal definition as a standing decision characterized by behavioral consistency and repetitiveness on the part of both those who abide by it (Kraft and Furlong (2012). Policies also can be thought of as instruments through which societies regulate

themselves and attempt to channel human behavior in acceptable directions (Schneider and Ingram 1997).

Walliman (2006: 39) suggests that what one perceives is a result of interplays between past experiences, including one's culture, and the interpretation of the perceived. "It includes senses, feelings, ideas, thoughts, and theories." Concept is its "final point" and allows you to see differences. In simple terms, Perception is "your ability to understand the difference." But more than this, perceptions as Keil and Debanne (2005: 19) suggest "play a crucial role, not only in stating the kind of problems to be dealt with, but also in constituting the arenas in which actors can compete, dominate or co-operate" They argue that official at different levels or scales of the state are involved in a politics of 'scaling'. In other words there is an "ongoing negotiation about which issues need to be dealt with at which level of space and time (e.g. the local, national and global). Officials seek to build and maintain their own power adopting complex narratives and power games for promoting their interest (Keil & Debbané, 2005).

Policy formulation is the second major stage in the process of policy making which involves the development of proposed courses of action to help resolve a public problem (Kraft et al, 2012). As cited by Howlett & Ramesh (2003), Jones (1984:7) observed policy formulation involves assessing possible solutions to policy problems or, to putting it in another way, exploring the various options available for addressing a problem. The proposals may originate in the agenda setting process itself as a public problem and its solution are placed concurrently on the government agenda (Kingdon, 1984). In simple terms policy formulation is the process of defining, considering and accepting or rejecting options as the substance of the second stage of the policy cycle (Howlett & Ramesh, 2003). Such framing of policy involves story lines or sets of assumptions that undergird "the particular problem-setting stories one finds in any particular policy controversy" (Rein and Schon, 1996: 26).

Policy implementation is the fourth stage in the rational policy process which is concerned with turning policy intentions into action (Hill & Hupe, 2002). This stage relies on public servants who are there to deliver services to the people (Street – level bureaucrats). These include teachers, nurses, social workers, housing officials, civil servants, home affairs officials, police officers and administrators (ibid).

The Rational Comprehensive Model

The Rational Comprehensive Model or the top-down theory draws considerably from the economist's view of how rational person would make decisions as well as from theories of rational decision making developed by mathematicians, psychologists and other social scientist (Anderson, 2006). It has been used as a descriptive and normative statement of how policy is customarily made and as a prescription of how it should be made (Leach, 1982:87). The model specifies the procedures involved in making well-considered decisions that maximize the attainment of goals at organizational level (Anderson, 2006). In the field of public policy, RCM specifically borrows heavily from Max Weber's ideal view of bureaucracy which proposes that there are policy makers simply issue commands to those that are below them to implement rational policies guaranteeing a successful outcome which is a typical rational assumption (Lowe, 2004). This is usually done by the top politicians, managers and director generals (Leach & Smith, 2001). Within the hierarchal structure, decision making, authority, and responsibility follow a stringent-top down path (Ferman, 1990). Thus under RCM, if the policy fails, the blame is not laid on the policy itself but rather on the political or managerial organization as the policy makers.

RCM model is "rational" in the sense that it prescribes procedures for decision-making that, in theory will lead to the choice of most efficient possible means of achieving policy goals

(Howlett & Ramesh, 2003). RCM asserts that public policy decision making is very much a search for maximizing benefits at the least cost (Howlett & Ramesh, 2003).

The stages heuristic includes: Agenda setting, policy formulation, policy implementation and policy evaluation, and would be illustrated as a linear, top-down process:

The notion that the policy process is split into stages was developed in the 1970s (see e.g. Lasswell, 1970; Jones, 1970; Anderson, 2006).

Governments at all levels are faced with many different public problems and policies, but how do some problems beget so much attention than the others. The decision maker is confronted with a problem that can be separated from other problems or at least considered meaningfully in comparison with them (Anderson, 2006). However, although many problems may exist at this stage, they may not have a political or public saliency, or may not be high enough up on the agenda of political organizations or interest groups for them to include them on the agenda (Leach and Smith, 2001). Accordingly for a problem to be identified as a problem usually there should be enough evidence to prove that indeed it is a problem either through scientific evidence or through media coverage (Ibid:187). Once the problem has been identified, the next stage involves clarification and ranking of importance – in order of importance- the goals, values and objectives that guide decision makers (Anderson, 2006). Thereafter, the various alternatives for dealing with the problem are examined (Ibid: 123). This is followed by an investigation of the consequences (costs and benefits, advantages and disadvantages) that would follow from selecting each of alternatives. In its strict usage, rationalism would thus involve calculation of all social, political and economic values sacrificed or achieved by a public policy, not just those that can be measured in monetary terms (Dye, 1992). This stage is in turn followed by a comparison of alternatives and their respective "attendant consequences" (Anderson, 2006:123).

The decision maker chooses the alternative and its consequences that maximize the attainment of his or her goal, values or objectives (Anderson, 2006). RCM thus epitomizes the best possible decision (Ibid: 124). In theory, a policy is therefore rational when the difference between the values it achieves and the values it scarifies is positive and greater than any other value alternative (Dye, 1992). RCM is therefore based on the assumptions that value preferences of a society as a whole can be known and weighted and that there is a complete understanding of society values (Dye, 1992). It also premised on the `availability of information about alternative policies; that there is predictive capacity to foresee accurately the consequences of alternative policies; and, that there is intelligence to calculate correctly the ratio of costs to benefits (Dye, 1992).

Making choice out of the available options is one of the difficult parts in the policy formulation process, it is in fact the heart of policy formulation (Corkery, Land & Bossuyt, 1995). The choices can also be made complicated by the existence of many stakeholders in the formulation process that may each perceive issues differently and place different interpretations on policy outcomes. In theory, each option will each be weighed according to its advantages and disadvantages in relation to realizing the objectives of the policy (ibid).

Policy implementation stage is far the most difficult but prominent stage in the policy making process. Policy implementation involves public servants who are there to deliver services to the people (Street – level bureaucrats). These include, teachers, nurses, social workers, housing officials, civil servants, home affairs officials, police officers and administrators (Hill & Hupe, 2002).

The last stage in the policy process is policy evaluation. According to Leach & Smith (2001:242), evaluation is a systematic way of finding out whether the policy has made an impact on those it is addressed to. Evaluation is another form of power as it can be used to shut down the programs. It can either be formative or summative meaning that formatively it

is done during development or improvement of a policy and summative evaluation provides information on the policy's ability to do what it is designed to do. Therefore the two forms of evaluation will look at the short term as well as the long term outcome of the policy respectively (Ibid: 242).

The process of policy formulation may vary from one country to another and it does not necessarily follow the same path to final decision-taking. However, in general, there are five identified stages in policy formulation that represent noble points in an effective policy formulation process (Corkery, et al. 1995). The stages include: Issue/problem identification, Specification of objectives, development of possible options, design of implementation strategy, Policy review and reformulation.

The first stage in the policy formulation process is to clearly identify the issue or problem that has to be addressed and solved. Agere & Mandaza (1999) identify a number of critical factors that affect the articulation of the issue, for example, how the agenda is set, how an issue comes to light, the people who have identified the problem, their interests and the social environment within which the issue has been identified, the power to decide what will or will not be a policy issue has a significant impact on the evolution of the policy process (Ibid). The nature of the policy formulation depends on a number of factors including, the pressure for change, stakes involved in change, level of decision- makers involved, existence of precedents, interests of external forces, the degree of change, the threat of the status quo, the method of identification and the time within which it is conceptualized. Therefore the process addresses questions of who, when, what, why and how. Another factor may be the institutional environment in which the policy issue arises affects the way the issue is intellectualized and expressed (Corkery, et al, 1995).

The second step in the process of policy formulation is clearly defining the goals and objectives for addressing the particular identified problem or issue. Defining the goals and

objectives will help to determine the nature of the information required and stakeholders who may either benefit or lose from the change that may need to be brought into the process. It is important at the end of the policy formulation process to have a clear policy objective that can provide a basis for useful monitoring and evaluation and to also review policy implementation, an objective that will avoid danger of formulating a policy that does not address the real problem or issue (Corkery, et al. 1995).

In designing the strategies, one has to consider the instruments that implement the change, the financial and human resources that facilitate the process to be made explicitly so that roles can be clearly delineated (Agere & Mandaza, 1999). Sometimes policies are formulated but there is limited funding made available or there may not be skilled people to carry out the required functions (Ibid).

The last stage in the formulation process relates to the monitoring of the policy while it is being implemented. For reasons of finding out what needs to be done to ensure that the policy remains on track and is meeting its objectives. After policy monitoring, a review has to be done to see if the policy has presented the outcomes it is supposed to produce. This usually is done after some period in the implementation process (Agere & Mandaza, 1999).

In any particular frame-narrative, it is useful to identify two kinds of elements: the "framing devices," as William Gamson calls them, that suggest how to think about an issue; and the "reasoning devices" that suggest what should be done about the issue. Gamson describes these elements as metaphors, exemplars, catch-phrases, depictions, icons, visual "images" and other symbolic devices, which can be clustered together to comprise a "signature matrix" that enables an analyst to identify the "core package" inherent in a narrative (1983; 3).

According to Jones (1984:78), there are a number of broad characteristics of policy formulation: Formulation need not be limited to one set of actors. Thus there may well be two

or more formulation groups producing competing or complementary proposals, Formulation may proceed without clear definition of the problem, or without formulators ever having much contact with the affected groups, There is no necessary coincidence between formulation and particular institutions, though it is a frequent activity of bureaucratic agencies, Formulation and reformulation may occur over a long period of time without ever building sufficient support for any proposal, There are often several appeal appoints for those who lose in the formulation process at any one level, The process itself never has neutral affects. Somebody wins and somebody loses even in the workings of science. The picture this characterization of policy formulation shows that it is highly diffuse and complex process that varies from case to case (Howlett & Ramesh, 2003).

Incremental Model (bottom-up school)

The Incremental Model (IM) is the major critique of the rational model of policy. Originally developed by Charles Lindblom, -- and further elaborated by Wildavsky and others -- IM portrays public policy decision-making as a *political* process characterized by bargaining and compromise among self-interested decision makers (Lindblom, 1979). In IM, decisions that are eventually made represent what is politically feasible rather than what is maximally desirable. In Lindblom's view, decision makers do and should advance policies through a process of making successive limited comparisons with earlier decisions-those with which they are familiar (1979). He further argues that policy is rarely new and it always represents an accretion of previous policies. Decision makers work through a process of frequently reconstructing what from the current situation, step by step and by small changes, a process which he called "muddling -through" (Lindblom, 1979). Through this process, decisions thus arrived at are usually slightly different from those that exist. In order words, the variations from the status quo in decision making are "incremental".

The IM argues that a "good" policy is one that all participants can reach some level of agreement on rather than what is best in the abstract to resolve the problem. IM therefore bases its argument on a number of doctrines. First, the choice of goals or objectives and the empirical analysis of the action needed to attain them are closely intertwined with, rather than distinct from one another (Ferman, 1990). Second, the decision-makers consider only some of the alternatives for dealing with a problem, which will differ only incrementally (or marginally) from existing policies (Dye, 1992). Third, for each alternative, only a limited number of important consequences are evaluated (Ibid). Fourth, the problem confronting the decision maker is continually redefined. Incrementalism permits for innumerable ends-means and means-ends adjustments that help make the problem more manageable (Howlett & Ramesh, 2003). Fifth, there is no absolute decision that is right for the problem because contexts vary (Anderson, 2006).

Finally, decision- making is essentially corrective and is geared more to improving present, concrete social ills rather than to promoting distant social goals (Hudson and Lowe. 2009). IM therefore is more a realist view which avoids drastic fundamental changes. The model is based on a bottom-up paradigm which emphasizes that human agency in reality determines the great deal about how policy is implemented (Hudson and Lowe, 2009).

A different angle on the same problem is provided by Lipsky (1984) who argues that, "policy (is) not in reality the product of policy makers but (is) in the fact the outcome of the 'street-level bureaucrats', those people on the frontline of service delivery." Most "bottom-up" theorist argue that in fact policy is about what happens at the moment of delivery because street-level bureaucrats have the power to bend the policy and invent another policy to suit their own convenience. Anderson comments that 'policy is being made as it is being administered and administered as its being made (2006: 98).

In the context of water service delivery, this model is very important as it involves try and error methods before final alternatives are decided on issues pertaining a specific problem. As discussed above, if this model is to be applied by the water service providers including institutions then the problem of water accessibility would be eliminated.

In considering the competing approaches (RM and IM), it is clear that there are several dangers with adopting either one of these views. There have been efforts (see Elmore, 1979) to combine the top –down with the bottom up, but these only artificially reconcile the debates.

Another view is one which puts values at the forefront. This political variant of the rational model is supported by Leach (1982). Leach (1982:22) argues that against the inherently conservative attitude of the "muddling through" school (also see Hudson and Lowe, 2009) that:

> rationality can indeed usefully be analysed as a resource in policy making situations…. With a full awareness of structured interests… It is a skill opening up the policy process at vulnerable points.

The point is that public interests and public and democratic values can be rationally pursued even while understanding the inevitable gaps between official and actual policies.

Part Two: review of literature on water service-delivery to the poor in peri-urban

According to Hogrewe, Joyce and Perez (1993), the definition of peri-urban and slum has been difficult to agree on among practitioners and researchers across countries. However, there is some agreement that "peri-urban" include settlements that are marginal to the physical and regulatory boundaries of the formal city. They are also referred to as "squatter settlements", marginal settlements, shantytowns, urban slums, or illegal settlements (Ibid).

Marshall et al (2009), define peri-urban as an urban fringe and the geographic edge of cities as a place. Peri-urban might be formal or informal settlements, within the area of jurisdiction of a local authority, with high population density and high density low cost or shanty housing structures having inadequate or lacking basic services such as water services, roads, inadequate and poor infrastructures, etc. (UN-Habitat, 2010). Thus even the definition of the locality is socially and politically contested and constructed.

A number of authors (Hogrewe, 1993; Kariuki, 2003; Kulabako et al, 2010; McConville, 2014; Mwanza, 2001; O'Mearlly, 2011; Norstrom, Solo et al 1993, 2007; UN-Habitat, 2010) identified constraints that affect the provision of water services to these peri-urban settlements. The list is quite long in some cases. The following constraints have been generally identified in the literature as some of the typical constraints that make provision of water services to the peri-urban areas difficult:

- Institutional constraints
- Infrastructural constraints
- dense populations
- land tenure issues
- economic and financial constraints

Some might be common to most peri-urban settlements and some specific problems related to wetlands, lands which are low-lying, prone to flooding and as a result, they are exposed to the challenge of poor drainage and sanitation (Kariuki, 2003). In cases where the settlements are on steeply sloppy hills (Brazil's favelas), residents have to descend to collect water (Kulabako, et al, 2010). The cost of extending water services to high-up settlements is thus high (Solo, et al, 1993).

Institutional constraints are seen as fundamental. For example a number of authors argue that peri-urban settlements are high-turnover areas with transient populations and therefore face with a major administrative/institutional challenge. The decreased capacity of local authorities to provide services to the populations, and inadequate financial resources (unfunded mandates) and the lack of coordination among the responsible local and higher institutions is formidable (Nostrom et al 2009; McConville, 2014; Mwanza, 2001; Solo et al, 1993; Parnell et al, 2009; WUP, 2003). Neoliberal policies have sapped the managerial and institutional capacity of local governments and local government employees (McDonald and Ruiters, 2012). In cases where institutions dealing with the water sector carry out their mandates, they are often confronted with problems of bureaucracy, fragile technical networks, weak staff competences, and capacities of dealing with high population density in peri-urban neighborhoods and inadequate financial resources (Norstrom et al, 2009).

The World Bank has showcased Uganda as a privatization success story with a difference. Thus,

> In first decade (2001-11) of Uganda's pioneering private sector participation (PSP) model for small town water supply, (t) he number of towns under the PSP model has steadily risen from only 15 in 2001-02 to over 90 in 2010-11 with a combined population of over 1.5 million.

The World Bank as Hirn (2013) explains focused on small towns.

> The core idea behind PSP … in Uganda was to improve sustainability and efficiency of piped networks in small towns by hiring private operators (POs) for their commercial management. Driven by a profit motive, POs were expected to maximize revenue, minimize waste and maintain and expand networks in a sustainable manner. To guard social objectives, infrastructure remained under government ownership and the introduction of POs was accompanied by a complex regulation, as well as support, framework.

Furthermore, public works companies sometimes copy nominally successful models from elsewhere and imagine them working in their localities, but soon encounter difficulties (Solo et al, 1993). Solo (1993) further argues that public works companies in developing countries are highly susceptible to corruption and politicization since they deal with large contracts and lucrative payoffs, offer ample opportunities for patronage employment and enjoy low levels of competition. Such constraints make it difficult to establish democratic accountability and norms that could guide governance in such areas. The literature is extensive on corruption linked to privatization (Rose-Ackerman, 1999).

According to UN-Habitat (2010), peri-urban settlements often lack proper water infrastructure development because of vandalism. This often impairs some cities' abilities to maintain with a large scale of investment in new infrastructure and refurbishing the old ones (Rouse, 2013).

Many authors also note that urban problems are paradoxical since the more a city offers good services, the more people will flock to it (Lambright, 2012). As the Water Utility Partnership (2003: 23) notes: "... the concern amongst authorities [is] that if pipes are installed in areas without legal status, their permanence may be seen as providing a stamp of approval or some degree of legitimacy to the residents." In general terms infrastructure development cannot keep with population growth. This leads to a backlog of un-served populations and unmaintained infrastructure (WUP, 2003; Rouse, 2013). In peri-urban areas, issue of land and land ownership is often unclear because of the skewed land tenure system, leading to tenure issues and problems for authorities who wish to plan, zone and invest in public infrastructures since enforcement of fees becomes difficult (Mwanza, 2001). It is further argued that major issues for infrastructure is related to unregulated land- use patterns as people jostle to get close to livelihood opportunities.

Laying new networks in peri-urban settlements on unsuitable land (upgrading versus removal) to provide water services for the poor has been a constraint identified by the literature. Rouse (2013) also argues that the housing structures in these settlements are often shanty houses, too close to each other to lay the pipes. These settlements give little or no space for development of infrastructure (Kulabako, et al, 2010). Such placements of houses make it difficult for authorities to lay pipes networks and construct roads to provide services to these settlements (Mwanza, 2001).

Duflo, Galiani & Mobarak (2012), argues that the heterogeneous population (combination of agriculture, small manufacturers and workers) makes it difficult to plan and deliver the required service. Moreover some residents are temporary and seasonal migrants. Cities are often unprepared to absorb the populations and to provide adequate services. According to WUP (2003), the informal and unplanned nature of low-income settlements is a bigger constraint of service delivery than land tenure, and it remains the key bottleneck to service delivery in all countries across the continent. While the actual nature of the service problem differs from country to country, haphazard layout, lack of road access, high densities and overcrowding are also closely associated with the difficult of service delivery into these areas (WUP, 2003).

Another group of scholars see "the dominance of informal, unmonitored, irregularly placed housing provision puts a strain on existing infrastructure. This can lead to inadequate sanitation, unreliable water supply, intermittent electricity and over-burdened transportation" (Guneralp and Seto, cited in Vermeiren 2012). Torres (2007) argues that legal rights to land and ownership are a major challenge for utilities to provide water services in peri-urban settlements. Informal settlers often illegally occupy public or private land that most often fails to meet urban planning regulations which often creates delays in granting tenure and implementing development plans (Torres, 2007).This is sometimes seen as "invisible" by

local authorities because of lack of information about a particular settlement, such lack of information limits the provision water services to the poor (Dagdeviren, 2009). It is observed by a number of authors (Dagdviren, 2009; Satterthwaite, et al, 2005; Tremolet and Hunt, 2006; Water Utility Partnership, 2003; Water Aid, 2006) that throughout the developing countries providers are not permitted to expand water service provision without secure land tenure system. This is the case for both public and private water service providers (Mitlin, 2002).

Weak urban planning systems are at the heart of urban crisis. As the South African geographer, Todes argues "These mounting challenges have prompted renewed debate about planning in Africa and there has been a call to move away from "western modernism towards a more fruitful dialogue with the marginalized majority" (Pieterse, 2007; Harrison, 2007). Traditional planning with zoning laws is seen as repressive, punitive and rigid and "counter-productive."

Internal and external financing for extending services to the informal or unplanned areas is a further constraint as financing agencies are unwilling to risk resources. The World Bank stresses inappropriate payment arrangements, pricing policies and tariff structures, combined with socio-economic factors such as slow and irregular incomes.

This has led to a general perception that water delivery to low-income peri-urban settlements is a loss-making activity (WUP, 2003). Solo et al (1993) observed that insufficient capital and revenue collecting system constraints the development of infrastructure in peri-urban poor areas. They in addition pointed out that even if an affordable system could be installed for providing water and even if the financing were available for its installation, still an infrastructure would still be installed until an appropriate credit agency could be identifies or established to contract loans to the beneficiaries and to collect payments (Solo et al., 1993).

Communication between the utility and low-income urban communities on a wide range of issues (eg. Planning and design, operation and maintenance) is not given sufficient attention. Moreover, inappropriate information channels/messages are used to reach low-income communities. The development of effective strategies to sensitize the public on key issues (such as paying for water, raising hygiene awareness, reducing vandalism and misuse of facilities) is uncommon and public or customer relations programs are not tailored to users in low-income areas (WUP, 2003).

Serageldin, (1990) contends that urban upgrading has traditionally been highly subsidized and, as a result, cost recovery has not been a major issue in such projects.

Whilst, as subsidies become increasingly scarce, local governments and international donors are attempting to recover capital costs for public works. These attempts, however, have been met with significant resistance by the urban poor, which have resulted in a poor track record for recovering the capital investment costs regarding peri-urban water and sanitation projects. Consequently, international and national lending agencies are reluctant to invest in infrastructure for the urban poor. The costs of infrastructure installation include charges for regularization, legalization, and sometimes the expropriation of land that appear exorbitant to beneficiary communities. Many of these communities balk at paying development levies or charges for amortization of infrastructure investments.

The willingness of people to pay for improved levels of water services is seemingly powerful and therefore demonstrably an economic good, which simply means it has value to users who are willing to pay a price (Briscoe 1996). Nevertheless, the primary finding is not that people are willing to pay for water. This should be expected, because water is a basic human need and survival depends on it. The amount people willing to pay depends on their opportunity costs compared to the alternatives available to them, including use of unimproved source if

the price is too high with its consequent impacting on health. People would pay, use an unimproved source, or migrate to regions with water, if there is an endemic water shortage.

Availability of safe water especially in the peri-urban areas remains a challenge since government seems not to prioritize the need to provide services for such settlements. The liberalization of the service sector in Uganda where private and NGO sectors have been allowed to freely provide services increases laxity on the part of government to provide services effectively (Pangara and Pangara, 2008). The communities are left with only one option to access water from unprotected sources since the safe water sources are only accessible if one is willing to pay for the water/ service. Ideally, there is no alternative/ substitute for water and any one needs it. Where it is not available then communities willingly relocate to areas where water is available. The price of water is high and people resource to paying fees for water for purposes of drinking and cooking. Water for other uses like washing and bathing is drawn from unprotected water sources as a way of reducing the expense on water. This suggests that if safe water sources were available then no one would pay for the water (Briscoe, 1996).

Providing piped water supply scheme in peri-urban settlements remains a challenge due to overcoming perceptions of entitlements to free water. According to Pangara & Pangara (2008), cost recovery levels are reportedly very poor with less than 5 per cent of the people paying for water and therefore derail infrastructure development. Water has ceased to be an entitlement to many especially peri-urban communities since the different service providers invest heavily in making water services available. In the case of a private entrepreneur or service provider, the concern of cost recovery is an overriding concern although it might be the same case with government but sustainability of the water facility installed may take precedence. On both counts, payment for water services may not easily be done away with regardless of the low payment rate to pay for the water.

Water vendors

Water vendors make up a significant part of the water service delivery system and are both seen as a solution and a problem in some cities and towns. While the total scale of the vending market is difficult to assess, it clearly plays a key role in many informal areas (UN Habitat 2003). Kjellen and McGranahan (2006) note that the 'lower' boundary between vending and shared connections is difficult to distinguish, while at the 'upper' boundary of the market there is an overlap with small private network distributors. Nonetheless vending appears to be widespread and has been reported in all regions. Well-documented examples include: sales of bottled water; handcart and hand-carried sale of water usually by container; and water trucks selling water into the customers' containers, or into a ground tank.

In Uganda as elsewhere where regulation is absent, prices charged by for vendor water may be a matter of collusion between private providers. In Lilongwe, Malawi, for example, where public kiosks have been controlled by local leaders who have tapped profits (WaterAid, 2008). In some cities such as Lagos and Dhaka, small private suppliers used violence and deliberately vandalised the water supply system in order to stop efforts by municipal authorities to expand the public network to the slums (Gandy, 2006).

The regulation of hundreds of small private suppliers is inherently difficult and costly because of their size, number and variety (Batley, 2004; Dardenne, 2006). The attitude of the authorities toward those operating illegally also varies. Commonly they are tolerated by the municipal authority, which sees their important role in providing service to a significant number of people in informal settlements that are not served—and are unlikely to be served in the near future—by network utilities. As Kjellén and McGranahan (2006) note, one example is Accra, Ghana, where household resellers, though operating illegally, have been

transferred from an increasing block tariff to a commercial tariff "effectively acknowledging current practice".

Many utility companies and local government providers appear to prefer not to work with certain communities (Payne, 2005). This is a problem particularly for communities which have the characteristics of slums – where planning is weak and the information base is limited. While such reluctance is at least understandable, it does little to explain why alternative strategies are not more popular. Why, for instance, is it not more attractive for utilities to organize bulk sales to third-party providers in such communities?

The population living in the peri-urban settlements is largely low income earners, employed by the informal sector where their sustainability at work is very questionable. Their sources of income/ nature of employment suggests that they receive a wage thus if one has not worked then no money will be realized (McConville, 2014). Important though is the fact that failure to earn doesn't mean one has no bills to pay. Under such circumstances chances, the peri-urban dwellers are often time compelled to vandalize community installations, can never be offered a service with hope that bills shall be cleared and can engage in any form of illegal or bad practice to survive (Dagdeviren and Robertson, 2009). The behavioral characteristic of communities in the peri-urban as well make it had for service providers to extend the water services to in their communities.

One of the most commonly quoted reasons for poor households not accessing formal water and sanitation services is price. The poor, we are told, cannot afford to pay. This view manifests itself in a number of ways, most notably in a strong and resilient dedication on the part of many politicians to cross subsidies for consumption for water delivered at the house or through a shared connection (such subsidies are usually associated with the delivery of a water bill). Such cross-subsidies often take the form of an Increasing Block Tariff (IBT), which sets a subsidized price for water at low levels of consumption (say for the first $5m^3$

consumed in a month) and a compensatory higher price at higher consumption levels. Policy makers tell us that this will enable the poor to gain access to small quantities of cheap water and is therefore a progressive strategy (Chirisa, 2010).

According to The Cities Alliance (2002), cities place less investment in more marginal urban areas and thus the infrastructure and services where poor people tend to live is less developed than in more central and better-off urban areas. Shortage of clean water is the biggest concern of the urban poor. Poor households say they cannot afford fees imposed to install water meters and resort instead to buying water privately; people without urban residency also do this because they cannot legally obtain a water meter. The need to pay for water and sanitation services is further augmented in (Howard et al, 1993) where they assert that, worldwide experience at full cost recovery for water supply and sanitation projects have not been very successful.

In rural areas, recovery of capital costs mostly has not been tried, and even attempts at recovering simple operations and maintenance costs have had mixed results. Recent concern over spiraling public debt in developed and industrialized countries alike, coupled with growing awareness that water is a limited resource and that the majority of institutions responsible for providing water-related services cannot cover their costs, has led most governments and external support agencies (ESAs) to conclude that water and sanitation services should be recognized as an economic good for which it is appropriate to pay (Sheuya, 2008).

According to McConville (2014), the characteristic of peri-urban communities is the lack of stability of tenure. The chances that the population shall be evacuated on legal grounds given that the areas they normally occupy are marginal are high. On the other hand, the conditions under which they live are poor and less sustainable under situations where the families are big. To this end, peri-urban communities are occupied by migrant population in that the

period of stay in a given environment cannot be pre-determined thus making planning for delivery of service such as water supply very difficult (Rouse, 2013). Coupled with the awareness that the population lacks security of tenure, this undermines their potential to demand for the services which also suggests why may governments tend to neglect provision of services in these areas. The cost of living of peri-urban settlement communities therefore becomes very high in the long run as access to services has to be paid for quite expensively as opposed to what is incurred by their counter parts in the formal settlements (Rogers, et al, 1997). Exposure to health risks is equally high since failure to raise fees demanded to access services drives the persons in need to consumption of contaminated water as an alternative and this is ideally free from the unprotected springs.

Conclusion

This chapter discussed the conceptual framework and the literature review. The literature describes Uganda's legal and policy framework as it relates to water service delivery. Different institutional sectors responsible in the water delivery services have been explored and the study explored the various approaches of policy formulation and implementation. Approaches have been discussed in details with the researcher discussing the policy cycle in the process of policy making; models that guide policy process have also been discussed. The literature has identified the major constraints of providing water services to the peri-urban poor including, financial, institutional, theft and corruption, population growth, economic and infrastructural.

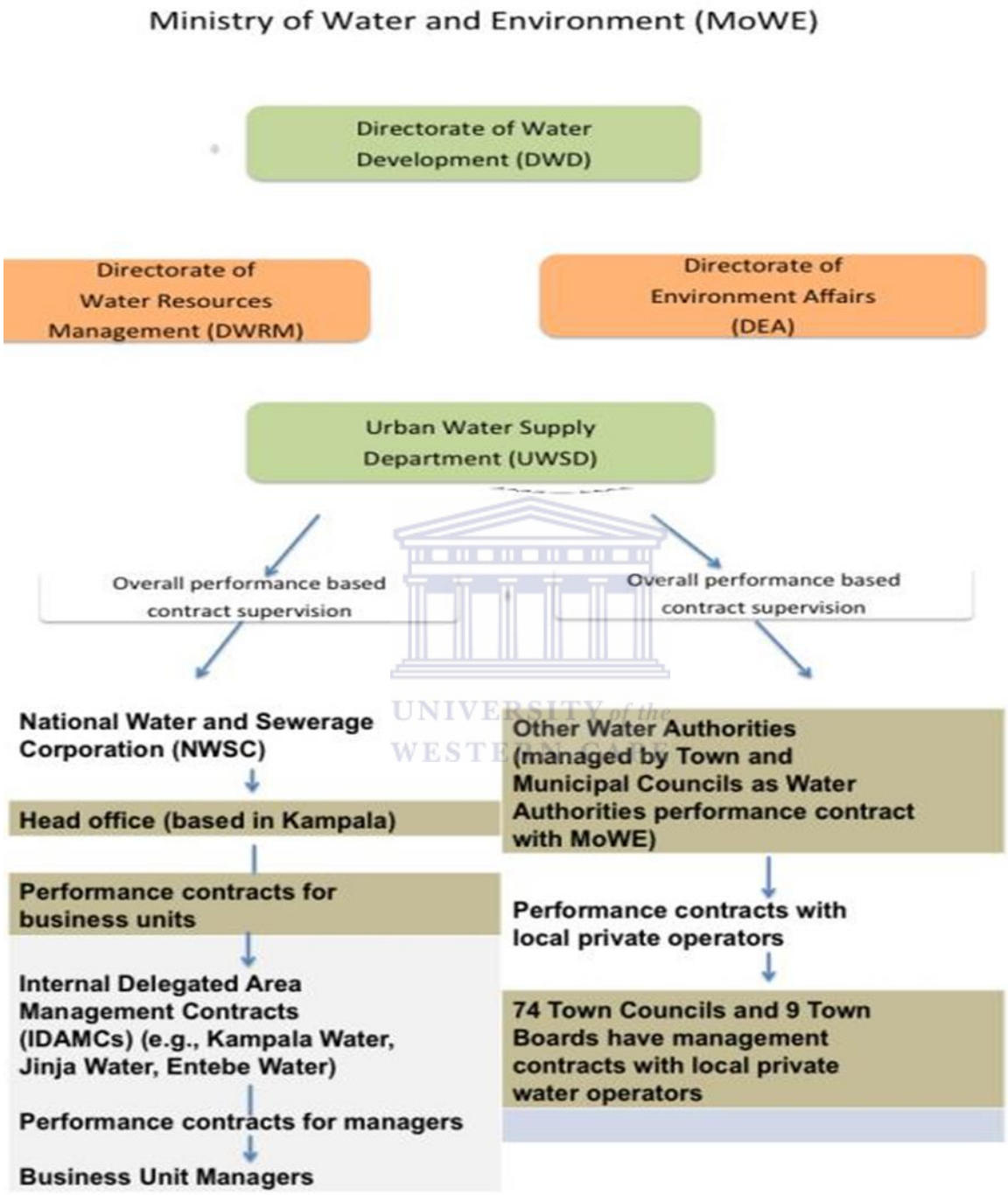
CHAPTER 3: UGANDA'S CONTEMPORARY WATER POLICY AND INSTITUTIONAL FRAMEWORK FOR URBAN WATER PROVISION

Introduction

This chapter describes the policy and institutional framework for water service provision sector in Uganda. The framework is based on several policy reforms since the mid-1990. The water service provision is a key sector in Uganda and is provided for in the 1995 constitution of the republic of Uganda, which stipulates the right to water and specifies government as an organ responsible for delivering it.

Some of the government policies and the legal framework that guide the water service sector include, the Water Act and accompanying regulations (Water resources Regulations of 1998), Water Supply Regulations (1999), the Uganda Action Plan (1995), but the most relevant are, the National Water Policy (1999), the 1997 Local Government Act and the National Water and Sewerage Corporation Act (2000). The institutional framework for the provision of water services in Uganda is dominated by the Ministry of Water and Environment (MWE) and several other ministries inducing, Ministry of Finance (MoF), Ministry of Local Government (MLG), the National Water and Sewerage Corporation (NWSC). The figure below shows the institutional and regulatory framework of urban water supply services in Uganda.

Figure 4: The Institutional and regulatory framework of urban water supply services in Uganda



Source: World Bank, 2014.

Overview of legislative provisions

In Uganda, the water and sanitation sector falls under the Ministry of Water, Lands and Environment (MWLE). The NWSC is a public corporation wholly owned by the government of Uganda, having been established in 1972 by decree No. 34. Under the new legal framework (after 1995), the powers and structure of NWSC were revised to enable the corporation to operate on a commercial and financially viable basis. Thus, the corporation is currently authorized to manage water and sewerage services in 19 urban areas under its jurisdiction. Uganda's urban population is about 4 million people and of this NWSC towns constitute about 2.5 million people (Mugisha, 2006).

According to the 1995 constitution of the Republic of Uganda, water is a human right that government should provide and deliver to its people (National Water Policy, 1999). It instructs all responsible institutions to take measures to promote good water management system at all level and it defines safe water as one of its objectives. It is from this background that the Ministry of Water and Environment, as the overall policy formulator is responsible for setting national policies and standards, and priorities for water development and management (Rudaheranwa, 2003).

The legislative framework on the water sector was established under the Uganda Water Statue of 1995, in 1997 the Local Government Act followed, this defined the different roles for the different levels of governance in the provision and management of water related services and activities (National Water Policy, 1999). The Act stipulated that it is the responsibility of the *local councils* in districts and urban centers to provide and maintain water services with the support and guidance of relevant central government agencies (Rudaheranwa, 2003). Providing for a continuous process of decentralization is the main aim of the Act whereby functions, powers and service provision is devolved and transferred from

the central government to Local governments in order to increase local democratic control and participation in decision making and to mobilize support for the development relevant to local needs (National Water Policy, 1999). The water and sanitation issues were further incorporated in the Environmental Statue of 1995 and the water regulations of 1998. This legislative framework represents a comprehensive framework for the water sector management (Syngellakis and Arudo, 2006).

The National Water Policy was established in 1999 as a new approach to manage water resources in ways that are most sustainable to the people of Uganda. This approach recognized water as a social good as much as giving more attention to its economic value (NWP, 1999). Its objectives included to manage and develop the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations with full participation of all stakeholders, improvement of coordination and collaboration among the sector stakeholders to achieve efficient and effective use of financial and human resources, promotion of awareness of water management and development issues and the creation of the necessary capacity for the sector players at different levels (NWP, 1999). This was followed by the NWSC Act in 2000.

The National Water and Sewerage Corporation Act, 2000 was established to set out the roles and responsibilities of the National Water and Sewerage Corporation (NWSC) to provide and operate water services in areas entrusted to it or under the Water Statute, 1995. The Act also describes the institutional framework within which NWSC operates, including the substantial autonomy which the utility benefits from (World Bank, 2014). The main objectives of the Act were to manage the water resources in ways which are most beneficial to the people of Uganda, to provide water supply services for domestic, stock, horticultural, industrial, environmental and other beneficial uses, to provide sewerage services in any area in which it

may be appointed to do so under this statute or the Water Statute 1995, to do anything connected or incidental to the above, to develop the water and sewerage systems in urban centers and big national institutions throughout the country (NWP, 1999).

The role of Institutions in water urban provision

The role of the Ministry of Water and Environment (MWE) is as the lead institution that has overall responsibility for setting national policies and standards, and priorities for water development and management (NWP, 1999). It also monitors and evaluates sector development programs to keep track of their performance, efficiency and effectiveness in service delivery. MWE is responsible for the planning and provision of sanitation and hygiene facilities. In practice, these activities are undertaken at district government level. According to the NWP (1999), The MWE has three directorates, the Directorate of Water Development (DWD), Directorate of Water Resource Management (DWRM) and the Directorate of Environmental Affairs (DEA).

The role of the Directorate of Water Development (DWD is responsible for managing water resources, coordinating and regulating all water and sanitation activities and providing support services to local governments and other service provides. DWD regulates water use and waste discharge, supports districts in implementing decentralized Water Supply and Sanitation (WSS) programmes and implements schemes (new construction and rehabilitation) in small towns and rural growth canters. DWD approves local government work plans and reports (Syngellakis & Arudo, 2006).

The Directorate of Water Resource Management (DWRM) is responsible for developing and maintaining national water laws, policies and regulations; managing, monitoring and regulation of water resources through issuing water use, abstraction and wastewater discharge permits; Integrated Water Resources Management (IWRM) activities; coordinating Uganda's

participation in joint management of trans-boundary waters resources and peaceful cooperation with Nile Basin riparian countries. The directorate comprises three departments namely Water Resources Monitoring and Assessments, Water Resources Regulation and Water Quality Management (NWP, 1999).

The role of the Directorate of Environmental Affairs (DEA), is according to the Water and Environment Sector Performance Report [WESPR] (2013), is responsible for the environmental policy, regulation, coordination, inspection, supervision and monitoring of the environment and natural resources as well as the restoration of degraded ecosystem and mitigating and adapting to climate change. DEA comprises of four departments of Environmental Support Services (DESS), Forestry Sector Support Department (FSSD), and the Wetlands Management Department (WMD). DEA works in collaboration with the National Environmental Management Authority (NEMA) and the National Forestry Authority [NFA] (Ibid: 12).

The National Water and Sewerage Corporation (NWSC), is a public corporation wholly owned by the government of Uganda. Its legal position was strengthened by the NWSC Act 2000 which revised its powers and structures to enable the corporation to operate on a commercial and financially viable basis (NWP, 1999). It operates and provides water and sewerage services in 22 large urban centres. Uganda currently has 22 municipalities and NWSC operates at municipality level. It also plays the same role in Kampala Capital City Authority (KCCA) the country's capital city and across its five divisions of Kawempe, Makindye, Central, Lubaga and Nakawa (WESPR, 2013).

In the financial year 2010-11 the water and sanitation sub-sector budget was UGX164.9 billion (US$66.5 million). About 30 per cent of this was from donors. This was lower than in previous years when for example it was at 50 per cent (in 2007-08) (see Hirn, 2013). Bulk water infrastructure which require large capital investments such as pipe extensions are

funded through state subsidies (conditional grants). That there has been a steady expansion is, to a large extent a result of state provision. According to Hirn (2013) the percentage of active connections relative to the total number of connections has remained fairly stable, with around 20 percent of existing connections not being active, usually due to non-payment or damage.

The role of the local governments

Local government includes Kampala City Council Authority, districts, towns, and sub-counties. These are empowered by the Local governments Act (1997) for the provision of water services. They receive grant funding and may mobilize local resources for implementing rural WSS programmes and to support small town WSS. Local governments, in consultation with DWD/MWE also appoint and manage private operators for urban schemes outside the jurisdiction of NWSC. District Governments (DGs) are being encouraged to set up District Water and Sanitation technical Committees (DWSC) to oversee and provide effective coordination of water sector activities in the respective Local governments (WESPR, 2013).

Uganda's capital city, Kampala, was recently described by one prominent resident and former politician in the Buganda Kingdom, Daniel Muliika, as a 'modern "executive slum" because of the breakdown in most of its social services' (Otage and Ngosa 2011). Uganda's decentralization policy grants local governments responsibility for local service provision in many critical policy areas, including health, water and sanitation, solid waste management, education, and roads. Like Kampala, most urban governments in the country struggle to fulfill these responsibilities.

Many recent changes also influence the ability of Kampala's city administration to deliver critical services to urban residents. In 2009, Parliament approved the Kampala City Act,

which removes the city council and instead creates a corporate entity, the Kampala Capital City Authority (KCCA), to govern the city. The act wanted to 'moderate' the powers of locally elected politicians but reduces power they used to have. The new mayor, now termed "Lord Mayor" is symbolic while executive power is now entrusted to an Executive Director (ED) directly appointed by and accountable to the president (Lambright, 2012). The Executive Director serves as the head of the public service, head of the administration, and the accounting officer for the authority (Uganda 2011: 18–19).

The act also created a new ministerial position, Minister of Kampala, with the authority to veto or rescind decisions and actions of the new KCCA, as well as give directives to the authority that it must follow (Uganda 2011: 52–53). Kampala's first Executive Director, Jennifer Musisi, assumed office in April 2011. On the surface, the reorganisation is meant to fix service delivery in Kampala. Yet, the timing according to Lambright (2012) can "certainly be linked to partisan struggles. For example, there is certainly concern within government that poor service delivery contributes to discontent among urban residents and in turn growing support for the political opposition (interview with Commissioner, Ministry of Local Government, May 2011)".

Conclusion

This chapter describes Uganda's contemporary policy and institutional framework for water service provision sector. The framework is based on several policy reforms since the mid-1990. The institutional framework has described the different roles of institutions that are responsible in the water service provision. Some of the government policies and the legal framework that guide the water service sector described include, the National Water Policy (1999), the 1997 local government Act and the National water and sewerage Corporation Act (2000). The institutional framework described includes, the Ministry of Water and

Environment (MWE) together with its three directorates, DWD, DWRM and DEA and the Ministry of Local Government (MLG) and the National Water and Sewerage Corporation (NWSC).

CHAPTER 4: FINDINGS AND DISCUSSIONS

Introduction

The previous chapter outlined the legal and policy framework for water services in urban Uganda. This chapter presents the research findings and a thematic discussion of the responses of government officials' about the constraints facing the provision of water services in peri-urban settlements in Kampala, Bwaise III parish. The chapter discusses the interviews with officials according to the themes which emerged in the interviews about constraints. These were: finance, economic, infrastructural, growing densities of population in unplanned areas, institutional, physical and technical constraints, land tenure system, unplanned settlements, corruption, politics and policies. The various themes emerging from the narratives are then analyzed against existing literature showing where official narratives convergence and or contradict the literature. While these constraints might be inter-related and overlap, I have tried to get my informants to highlight the most fundamental ones.

Finance and infrastructure

The interviewees were asked to rank their responses along a four point scale (from most to least important). Altogether 30 official respondents are listed in the tables. The first number refers to respondents and the second (in brackets) is the percentage of total respondents. Thus in column two row two 10 officials said that financial constraints were "most important".

Table 1: Levels of important for finance and infrastructural constraints n=30

Constraints	Most important	Important	Not important	Least important
Financial constraints/funding	10 (33.3%)	14 (46.7%)	4 (13%)	2 (7%)
Infrastructural	13 (43%)	12 (40%)	3 (10%)	2 (7)

About 80% (24/30) of the respondents' agreed that funding was either most important or important. They pointed out that provision of water services is defined by limited funding. One person further argued that;

> The financial envelope is too small and continues to shrink as water takes less than 2% of total government budget. In fact if there were enough funds, there wouldn't be any problem providing water to the peri-urban poor areas… (Interview 10th Jan-2014).

Respondents also noted that there were "delays in allocation or approval of funds by the ministry of finance" to execute programs on time. Furthermore, funding also limits the extension and improvement of infrastructure.

The officials alleged that inadequate financial resources further limit the maintenance of infrastructures. Some respondents noted that,

> It is costly to maintain the infrastructure in these areas, sometimes the infrastructure is broken and we need to repair, this is costly" "funding is a major problem especially when we need to construct and extend water networks (interview 15th Jan, 2014).

My findings indicate that various financially related limitations were expressed by the government officials and among these was the fact that water supply utility was not adequately funded by the Ministry of Finance to supply affordable water service to the poor.

Only 2 officials (7% of the respondents) considered financial constraints least important in their mandate to provide water to the people of Bwaise III as their work was more of supervisory.

Moreover officials questioned how government prioritizes spending.

> Government is spending billions of shillings each year for less important things, like at the National leadership institute, Kyankwanzi , which money can be diverted to providing water services to the poor" (interview 11th Dec, 2013 & 09th Jan, 2014).

The findings are consistent with the broader literature where it has been noted that financing of water projects especially in informal or unplanned settlements has always been a challenge especially in cases where money is out sourced from external donor agencies (Mwanza, 2001; Water Utility Program, 2003; Lule, 2014). According to Lule (2014) funding agencies sometimes fear risking their resources particularly in cases where communities demand for compensations before projects are executed. Meanwhile, Mwanza (2001) postulates that limited funding and inadequate allocation of government resources primarily affects low-income areas that are unplanned.

The findings with regards to financial constraints are consistent with the extant literature. As noted in chapter two of thesis, we can see that local officials tend to play a "politics of scale" by relocating the issues elsewhere: in this case, blaming the Ministry of Finance.

However, as many utilities in Kampala have ready access to funding, most funding agencies are not willing to invest their resources in unplanned settlements like Bwaise 111. This assertion is evident in the findings where one respondent pointed out that,

"In fact if there were enough funds, there wouldn't be any problem why we shouldn't provide water to the peri-urban poor areas…" (Interview, 8th Jan 2014).

Meaning that if there was adequate funding from the Ministry of finance and donor agencies, the provision of water services in Bwaise 111 wouldn't be a problem. Lule (2014) agrees that funding is indeed a major constraint of providing water services to the peri-urban poor.

As indicated by WUP (2003) provision of water services is constrained by limited funding and therefore impacted negatively on issues such as, inappropriate payment arrangements, pricing policies and tariff structures, combined with socio-economic factors.

The focus on water as a commodity and not as a public good has led to a general perception that water service delivery to low income settlements is "a loss making activity". Therefore their ability to pay for the services is not reliable, making it difficult for the utilities to provide for them. This is pointed out by respondents, "Majority of the providers view poor people as risky customers whose opportunity cost to pay for water is very high" (interview, 13th Jan 2014).

With respect to infrastructural constraints, the study findings were that infrastructure constraints have been exacerbated by poor and multiple plans being implemented and therefore leading to inadequate delivery of water services in places like Bwaise 111. Findings further show that 13 (43 percent) informants saw infrastructure as important, while 12 (40 percent) indicated being "most important". These percentages clearly show that officials see infrastructural development is still inadequate in Bwaise 111 parish. Respondents pointed out that the older infrastructure such as pipes could not cope with the demand for water services.

Reluctance from investors to expand and improve the existing infrastructure is quite a challenge because of the skewed land tenure system whereby government does not have

direct influence as land belongs to the people. In this case, land owners usually demand for exorbitant compensation which to some extend fail the planned projects to be executed.

Besides, respondents pointed out that construction of long-lasting water supply infrastructure was made difficult by unfavorable topography of the settlements on wetlands. These sentiments were expressed by the officials as quoted below. “In fact the peri-urban poor occupy land that is not suitable for settling on, for example the river encroachments or catchments, so it is a challenge to provide permanent infrastructure” “The infrastructure and water system in this area is very old and ineffectual, and because our pipes are very old, sometimes they burst because of the water pressure…difficult to invest in new infrastructure” “The infrastructure is inadequate and poor, and since these areas are illegally occupied, we are skeptical to provide and improve the existing infrastructure.” See figure 5 which shows a broken water pipe due to its ages and unable to handle the water pressure.

Figure 5: Broken water pipe

Source: field research

Figure 6: Water point

Source: field

As seen in figure 6 above, water points were introduced to enable the slums dwellers have access to clean and safe water at an affordable price, however, they are limited in number and in this case not contributing much to the communities in Bwaise 111 in terms of connectivity given the population growth.

The findings are consistent with the literature by UN-Habitat (2010) which argues that inadequate infrastructure is a major challenge in provisions of water services to peri-urban areas and constructing or developing new ones have been constrained by inadequate funding.

This is consistent with Chirisa (2009), who argues that investment to provide and extend infrastructure is always limited as investors are usually not attracted to invest in the poor unless they were government whose mandate us normally social/public rather than commercial (Ibid: 017).

Growth and density in population and poor policies

Table 2: Level of Importance of the growth and density population and poor policies constraints

Constraints	Most Important	Important	Not important	Least important
Growth and Density of Population	17 (56.7%)	13 (43%)	0 (0%)	0 (0%)
Poor Policies	6 (20%)	5 (16.7)	10(33.3%)	9 (30%)

All respondents believe that population growth is a serious constraint affecting water provision services to the peri-urban poor. But given that there is no monitoring of population movements as well as clear official statistics this finding is interesting. Generally respondents pointed out that population growth impacts negatively on the planning and effective provision of water services to peri-urban areas like Bwaise.

High population in-migration has in addition caused a strain on waste disposal and therefore having a negative effect on the water infrastructure. 100 percent of the respondents believe that "it is very difficult to plan and deliver services for the unregulated populations" They also noted that "The need to lay pipes in areas that are inhabited by new entrants in the peri-urban areas makes it difficult to provide services." As another official observed;

> Population growth has a direct impact on quality and quantity of water available
>
> (Interview 11th Dec- 2013, pro-poor unit Branch manager in NWSC)

"Rapid rural-urban migration stress existing infrastructure with illegal and unplanned physical developments" "High population density is the big problem especially in pipe network extension."

> Dense population is the most important constraint, as resources are always inadequate to cater for the expanding numbers of people plus the quality of the service becomes poor…People come in and go as they wish in these settlements, so it is a big challenge to plan and provide for them

According to respondents, very high population growth substantially limits water delivery in Bwaise 111.

But authorities in Kawempe division where Bwaise parish is located have had to contend with problems of delivering water services without the correct statistics of the actual population. Yet they seem to hold that rising population is the problem. They pointed out that the number of people moving in and out of Bwaise as well as occupants of each house hold is not clearly known. It was argued by informants that "… The city should be well prepared to cater for the influxes of people entering the city in search of green pasture, poor planning of the city" **(**interview 09th-Jan-2014**).**

It seems that population growth is *the* important constraint in water services provision. Mwanza (2001), confirms that rapid urbanization is the most critical challenge for those providing services to the peri-urban settlements, unable to keep up with the speed of population growth, many peri-urban settlements have experienced a substantial increase in the numbers living below the poverty line. This is consistent with the literature by other scholars such as (Rouse, 2013; McConville, 2014), who argue, that population growth has great implications on water resources and planning as it stresses the existing infrastructure and investment to provide and extend new infrastructure is not possible.

Planning and providing water services for the ever growing population of the peri-urban settlements is a challenging issue, not only does it drain the infrastructural resources available but it also drains the financial resources (Norstrom et al, 2009). "Rapid rural-urban migrations stress existing infrastructure with illegal and unplanned physical developments*"*

Furthermore, Norstrom et al (2009), points out that the constraint of population growth leaves the utilities in a difficult position where complex and rapid growth patterns need to be met with insufficient time and resources to address the various aspects affecting the success or failure of planned water service delivery. "It is very difficult to plan and deliver services for the unregulated populations," this is further evidenced in the findings where one respondent pointed out that,

> Dense population is the most important constraint, as resources are always inadequate to cater for the expanding numbers of people plus the quality of the service becomes poor.

The studies by authors such as (Howard et al, 2003; Nsubuga et al. 2004; Haruna et al. 2005; Kampala Urban Sanitation Project [KUSP] 2006) confirm that over 80% of the spring sources in Kampala have feacal contamination even when protected, this situation stresses further the available resources whereby it increases the cost of treating the water, and delivering it to the poor plus it increases the cost of water making it even more difficult for the poor to afford. Over or underestimations population data projection were further viewed as other limiting factors to the delivery of water service peri-urban settlements (Mwanza, 2001; Kariuki, 2003).

Regarding policies only 11 out of 30 (35%) saw poor policies as a problem. In other words 19 officials thought existing policies were good. The majority (33%) and (30%) consider policies to be not important and least important respectively. Those critical of policies noted:

> The policies do not clearly elaborate or define the cause and origin of the problem. The policies are weak, implementation is a problem. The government policy causes the problems faced by the poor as it allows them to stay in unplanned areas (mostly the low laying areas). ….and there is no clear zoning of the settlements.

Officials noted that policies are not always understood or followed and as result implementation of public programs was at times difficult. Strategies should support the policy in order to give a mandate of the different institutions that are involved in water provision both nationally and locally.

In Kampala in particular (see chapter 3), there are a number of institutions involved in water services, each one of them having its own policy. This in essence causes a mismatch in terms of responsibility and roles played and therefore creating problems than solutions.

Kulabako et al (2009) alludes that there is a challenge of information gap between the policy makers, service providers, and the urban poor communities. Government he argues must enforce laws that should prohibit settlements on unsuitable land such as river encroachments and low laying areas which may challenge utilities to provide water services (Kulabako et al (2009).

Vandalism and technical constraints

Table 3: Level of Importance of Vandalism, illegality and physical and technical constraints

Constraints	Most Important	Important	Not Important	Least Important
Vandalism	3 (10%)	2 (7%)	13 (43%)	12 (40%)
Physical and technical constraints	14 (46.7%)	16(53.3%)	0 (0%)	0 (0%)

Most informants (83 %) saw vandalism as being not important and least important. This shows that vandalism is not a major constraint of providing water services to the peri-urban settlements. However one official (Interview 1) observed that illegal pollution (is dumping waste) is indirectly raising costs of water purification. “The poor have a waste disposal

culture… waste from peri-urban areas is being dumped in the lake where raw water is being extracted. This has increased the price of piped water as a knock-down effect due to the treatments involved".

Research by Manamela (2010) and Myburg (2008), point out that vandalism of the water infrastructure like taps and pipes were major constraints that affected heavily on the water projects that were intended to supply water services to the poor. This literature is in contrast with the findings where officials ranked vandalism as the least important constraint of providing water services to the peri-urban settlements.

Physical and technical constraints

All the respondents (30) saw physical and technical constraints as crucial. Thus 14 (46.7%) viewed physical and technical constraints as either most important while 16 (53.3%) ranked it to be important. In addition, majority of the respondents had this to say: "We lack technical personnel to repair the new water points" "it is costly to outsource technical personnel from South Africa where water points where manufactured" This means that water provision in peri-urban areas will remain a challenge as long as authorities do not put into consideration the importance of technical issues.

The technical issues are further hampered by the physical location, the topographical location and the quality of housing in Bwaise 111 limit the utilities to develop water infrastructure in this area. Findings point out that, "The poor often occupy the undesirable land that is not suitable to settle on due to its location." They further pointed out that the provision of water services in Bwaise 111 parish has been complex because the place is swampy and is located in a low lying area prone to flooding. Expanding water networks in such areas is technically difficult.

Physically Bwaise 111 parish is a congested settlement on a fairly small elevated piece of land, such a pattern affects the water service providers to plan and lay water pipes, land owners would demand for compensation hence making the work of services providers difficult, “The houses are built too close to each other that laying pipes is extremely very difficult”

As a consequence connectivity has also been difficult particularly where compensations and consultation are to be undertaken. Besides, findings also indicate that there are technical constraints, for example respondents mentioned about the new imported equipment (water points) sometimes break down but there are no technical personnel to repair them, hence making the delivery difficult. Respondents further asserted that it is costly to outsource the technical personnel from “South Africa” where water points are manufactured have indicated that they are devising their own local methods of repairing them.

This is consistent with the literature such as (Bakalian and Jagannathan, 1991; Solo et al, 1993) who argues that, technically local engineers and their advisors prefer to use service delivery systems that they are familiar with, even if these systems may turn out to be inappropriate for the difficult topography, soils and other conditions of peri-urban settlements. Specifically, these conditions may make the installation of conventional infrastructure extremely costly in that it can be much more expensive than the less-familiar technologies that have been developed as appropriate responses to these conditions (Bakalian and Jagannathan, 1991).

There are a huge percentage of the respondents who viewed physical and technical as primary links to the findings about the importance of population. Such percentage is significant that water service delivery has been hugely affected by the technical and physical constraints.

Solo et al (1993) identified the physical and technical constraints which include difficult sites and terrain, complicated layouts, and overreliance on conventional service delivery systems. The findings' relate to problems that *"the* poor often occupy the undesirable land that is no suitable to settle on due to its location (Solo et al. 1993. Furthermore, urban poor lack technical know-how and assistance and often develop their areas haphazardly without allowing adequate space for installing the infrastructure line. "The houses are built too close to each other that laying pipes is extremely very difficult."

Sites may be located where no road or water main will ever reach; making it costly for the water utilities to connect them to the water mains that are available, plus it is unlikely for the poor to afford for the exorbitant costs that may be charged by the utilities as a way of collecting revenue (Solo et al 1993). Furthermore, these areas are built in a way that is haphazardly, without allowing space for installing and further developing new infrastructure lines to provide water for them.

In addition, Solo et al (1993) points out that the construction of these houses leaves no room for service delivery and that laying pipes under such circumstances conventionally calls for the creation of streets and the consequent removal and relocation of houses (rather than bending pipes around them). In such a situation, the cost of service delivery is higher, both financially and social terms (Ibid).

Corruption and scarce, additional land

Table 4: Level of importance of lack of additional land and corruption constraints

Constraints	Most Important	Important	Not Important	Least Important
Lack of additional land	11 (36.7%)	15 (50%)	3 (10%)	1 (3%)
Corruption in institution	2 (7%)	3 (10%)	9 (30%)	16(53.3%)

Findings show that, majority of officials (26) ranked the lack of additional land as a major constraint of providing water services to the people. This was represented by 36.7% and 50% being the most important and important constraint respectively. The findings correspond with the literature by (Muinde, 2013) that says that lack of land for developments has hindered major projects aiming at providing services to the poor. Land in peri-urban settlements is acquired through the land tenure system which is a major constraint for development which comes up out of perception of security of planned investments on the land by residents (Muinde, 2013). Land in Uganda is owned by "the people", but most of the peri-urban settlements occupy the Mailo land, this land historically belonged to the king who gave it to his loyal servants. The land has become smaller for the population that has grown fast in these settlements thereby affecting the planning and provision of the services to the peri-urban poor.

Corruption is endemic in Uganda; a report by Krolikowski (2014) shows that a study by independent anti-corruption organizations revealed that, Uganda is the most corrupt country in the East African Community (EAC). The community comprises of Uganda, Kenya, Tanzania, Rwanda and Burundi. Ugandan President Yoweri Museveni had decried high levels of corruption in the country, saying it deterred development (ibid).

However, the majority of the respondents (53%) ranked corruption as least important. They pointed out that corruption has affected service delivery in many ways including the water sector. Some argued that corruption has been caused by poor remuneration and facilitation and while others said they are contented with what they so far earn. An official from NWSC pointed out that,

> Some officials are involved in illegal connections, meter tempering and bypass, some are dishonest and engage in shadow works. As a utility, we do our part well,

> may be corruption becomes a challenge when other agencies like KCCA are compromised in doing their part well (Interview 8th- Jan- 2014)

In efforts to address issues of corruption the same official asserted that the NWSC is doing enough to monitor and evaluate all the programs involved in the water services in the peri-urban areas, leaving no chance for them to be corrupt. "We are paid a good salary, so there is no need to be corrupt".

The President (Museveni) said he had embarked on fighting the vice and called on Ugandans to join him in the struggle. He was quoted saying that, "Corruption continues to be a major challenge. The public service has been worst hit with the vice, which has affected service delivery," (Museveni cited in Press Statement). However, this is in contradiction with the findings where 53% of the respondents ranked corruption as least constraint in provision of services in peri-urban Bwaise 111 parish.

Respondents went on to argue that, "We are paid a good salary, so there is no need to be corrupt" divorcing themselves from corruption issues yet it can be seen to manifest itself on the ground as the president confesses. The respondents further pointed out that, "As a utility, we do our part well, may be corruption becomes a challenge when other agencies like KCCA are compromised in doing their part well." Making it clearer he said that in his utility they are not corrupt.

The issue of corruption is seen as a constraint by scholars such as, Manemela, 2010; Myburg, 2008) who argue that corruption has been a major issue in providing water services to the peri-urban settlements where by officials involve themselves in corruption issues like, illegal connection, meter by passing and meter tempering. Such behavior shows that the institutions lack accountability and transparency among officials, it also increases the mismanagement of the water funds that are directed to the peri-urban poor and therefore making service provision difficult. This has been confirmed by a number of respondents who pointed out

that, "Some officials are involved in illegal connections, meter tempering and bypass, some are dishonest and engage in shadow works*"* (Interviews 12th, 10th, 15th Jan-2014).

Krolikowski (2014), points out that due to high and constant demand for water services, many water providers extract bribes and other payments as favors for connection, meter tempering and bypass to connect those that are willing to bribe them. It is simply because these institutions enjoy significant levels of mandatory power, with low levels of competition, thereby expanding the prevalence of corruption. Corruption further violates key normative principles of transparency, accountability, participation and probity (McGranahan and Satterthwaite, 2006).

In addition, a similar study by Olajuyigbe (2010) cited studies by UN (2002); Hall (2006), that confirm the claim that in the developing countries, a half of the water in the water supply system is lost to, illegal connection, leakage, meter tempering and vandalism, this has limited utilities to further provide and maintain the delivery of water services. Lule (2014) alludes that illegal connections contributes to lose of revenue and therefore impacting negatively on the effective delivery of water services to peri-urban settlements like Bwaise 111.

Institutional and land tenure system constraints

Table 4: Level of importance of institutional and land tenure system constraints

Constraints	Most Important	Important	Not Important	Least Important
Institutional constraints	12 (40%)	11 (36.7%)	6 (20%)	1 (3%)
land tenure system	17 (56.7%)	13 (43%)	0 (0%)	0 (0%)

The research in this thesis found that that 87 5 of informants argue that institutional constraints are an impediment to water provision in Bwaise 111. This has been characterized

by multiple institutions being involved in the water sector. It was observed the top down approach is part of the challenges to water provision in peri-urban areas. Nevertheless, there are no structures at the local level as policies and decisions are made from the top.

I also observed that multiple institutions cause conflict of interest and further strain the delivery of water services in an effective manner. Problems identified regarding institutional constraints are for example is the following entities performs almost the same functions but only differ in objectives (MoH, NEMA, MWE, NWSC) and interesting enough KCCA which is said to be closer to the people does not have much influence on the provision of water services. In general officials (see interview 10th, 11th, 12th, 13th- Jan- 2014) pointed out the following as an impediment:

> Institutional mandates are often fragmented and unclear, making it a challenge for us to provide water" "No single institutional wants to take blame and be responsible" "There is always a problem with coordinating efforts with other water providers" "Institutions are still lacking a number of resources" "Every institution under the ministry has its mandate in service delivery.

The implementation of policies between the institutional levels clashes and therefore causes major delays in executing water projects.

According to the findings, a small number of respondents indicated that there is a clear separation of institutional roles; where by every institution under the ministry has got its own mandate to carry out while the majority disagrees with this claim.

Authors such as Nostrom et al (2009); McConville (2014); Solo et al, (1993); Paenell et al, (2009); WUP,(2003) assert that peri-urban settlements are faced with a number of institutional constraints which in their view decrease the capacity of local authorities to provide water services to the populations in question. In this case, there is lack of clearly defined institutional structure responsible for the urban planning in relation to the delivery

and development of water infrastructure (Nostrom et al, 2009; WUP, 2003). Confirmed by the findings when the respondents revealed that, "Institutional mandates are often fragmented and unclear, making it a challenge for us to provide water.*"*

As discussed in the literature Mwanza (2001), points out that institutional framework/capacity has been a hindrance to service provision in a number of ways; inappropriate institutional arrangements, unclear utility mandates, local authorities and other water providers. He further points out that most utilities are not equipped to deal with the complexities of the low income communities and lack of interagency coordination between government and non-government agencies which leads to duplication of effort, contradictory actions and inconsistency in approaches and overlap of responsibilities giving rise to conflicting decisions, waste of scarce financial, human, technical and logistical resources (Ibid). The literature is consistent with the findings where by the respondents mentioned that, "No single institutional wants to take blame and be responsible" "lack of coordination among institutions involved."

However, revealed in the findings that, every Institution in the water sector has got its own mandate to carry out and sometimes this contradicts with each other. Literature by Nostrom et al (2009) and Paenell et al (2009) argues that the administrative responsibilities of these institutions for peri-urban settlements are often unclear, often making delivery of services complex. "There is always a problem with coordinating efforts with other water providers" "Institutions are still lacking a number of resources."

Land tenure system

Overall findings shows land tenure system still remains one of the major constraints impeding the provision of water services to the people of Bwaise 111 parish. They echoed for example, that places inhabited by poor people are characterized by weak land rights and

ownership and therefore infrastructure provision as well as habitation vary and as such: "Poor people often end up occupying flood-prone or unstable land in which provision of water services has become a bit complex and expensive". "Poor people's specific needs may be overlooked in favour of overall national priorities" For example, there may be disruption in providing a service in low-income neighbourhoods but due to lack of financial resources to compensate the land owners, projects are hardly implemented thereby residents not being able to access the services.

By and large, findings further indicated that projects on water infrastructure often fail or take longer to be executed simply because of the skewed land tenure systems which usually cause delays in terms of compensating land owners. As a consequence poor people end up being disadvantaged in benefiting from government investments designed for wider public. In light of the above, the private sector is unlikely to get involved in infrastructure development because of the insecure environment.

The opportunities are reduced for planning gain that might benefit poorer groups and reduce the need for public-sector infrastructure investment. The high demand for space for infrastructural development has been witnessed as a major constraint in providing water services to Bwaise 111.

The nature and legality of the peri-urban settlements makes it difficult for the utility to provide water services to them since the poor people end up occupying flood-prone or unstable land. A number of scholars such as (Dagdeviren, 2009; Torres, 2007; Satterthwaite et al, 2005) argue that most peri-urban settlers occupy the settlements illegally which is against the urban planning regulations, providing and maintaining water infrastructure in such a situation is a challenge to these areas. In some cases where the residents demand services, seeking legality of these settlements may take forever because these are areas that are located in the river encroachments, low laying and swampy areas. This is evident in the findings

where respondents argued that, “Poor people often end up occupying flood-prone or unstable land, in which provision of infrastructure services is complex and expensive.”

The responsibility of the utilities to provide water services depends on the residents having secure tenure of the property which the infrastructure is going to be constructed. This is evident in literature by scholars such as (Satterthwaite et al, 2005; Tremolet and Hunt, 2006; Water Utility Partnership, 2003; Water Aid, 2006) who argue that water utilities are normally not permitted to expand service provision to areas without secure land tenure. “Local regulation does not allow us to provide water services to those without secure land tenure” This is exact for both public and private water service providers (Miltin, 2002).

However Dagdeviren (2009) argue that the state can provide security of tenure for the poor to access water services if it can advocate various interim occupancy rights such as, granting non-transferable short term leases, collective property rights, use of community land trusts and protection against eviction. These rights can lessen the burden of administration and delays in the regulations which affect service provision to the poor (Payne, 2005).

In addition, literature by (Gulyani and Basset, 2007) argue that land tenure was not considered as a critical challenge for connecting the informal settlements to water supply networks and that development of infrastructure itself offers an operative tenure security (Connors, 2005). On one hand this is in line with the findings where the respondents pointed out that, “Providing the services to the illegal settlers may be seen as an endorsement or some degree of legality to the residents.” On the other hand it is contrasting with the findings where by the respondents argued that, “land tenure is the major impediment for providing water services to the poor, “Land tenure system has always been a major problem.” This is furthermore pointed out in the literature that land tenure issue has hampered the water utilities constructing permanent structures in these settlements. Laying pipes underground may be disruptive and costly in case the infrastructure may be removed by the land owners

(Dagdeviren, 2009). This is supported by the findings where the respondents argue that, "Permission from the land owners to provide and construct water infrastructure whenever there is any development is often fruitless," "Negotiating for compensation with land owners whenever there is a new development underway has been difficult."

Unplanned settlements

By and large findings show that unplanned settlements pose a significant challenge in the provision of water services to peri-urban areas due to lack of structures and space for instance to expand the infrastructure. The unplanned settlement brings with it a large number of subsidiary issues that are difficult to deal with. Respondents pointed out that unplanned settlement is a major impediment to provision of water services in Bwaise 111 and as such congestion and mushrooming structures as seen from figure 6 below are a contributing factor. Houses are too close to each other and as a result making it difficult for service providers to implement projects effectively.

Furthermore, officials highlighted the lack of permanent addresses; illegal land occupation, poorly planned settlement and poverty in general possess a real problem to the delivery of water services in peri-urban areas.

In the final analysis, officials (see interviews 9th, 8th, 11th, 12th- Jan- 2014) asserted that

> There are no permanent addresses for those people living in Bwaise 111 and other peri-urban settlements around Kampala; therefore it is difficult for us to collect revenue" "These are people on the move; it's difficult to plan and deliver for them" "Since this land has been occupied illegally, people are in constant fear of eviction. The co-operation finds it difficult to invest in such area with no proper legality.

Moreover,

> The poor often live in physical locations which complicate service extension, "Sometimes it's hard to negotiate with the land owners to pass water pipes through their land" "Most poor are adamant to pay for water; they instead prefer free water from the unprotected springs, wells and boreholes.

In summary the problems of Bwaise are characterized by skewed land tenure system, lack of political will, poverty, and poor implementation of water policy, bureaucracy, politics, poor service delivery and lack of participation among others.

Figure 5: Unplanned settlements in Bwaise 111

Source: field

Unplanned settlement as seen in figure 5 above was seen as one of the major constraints to the delivery of water services in Bwaise 111. It also remains one of the key bottlenecks to service delivery not only in Kampala but in other countries as well as alluded to by Mwanza (2001). Similar views were asserted by respondents who ranked 56.7% and 43% unplanned settlements as the most critical constraint hindering the provision of water services to Bwaise 111 Parish, thus further pointing out that; "There are no permanent addresses for those people living in Bwaise 111 and other peri-urban settlements around Kampala and therefore it is

difficult for us to collect revenue in order to improve the provision of adequate services." This is casts doubt whether people residing in a particular area will settle permanently or will move, hence service providers' get skeptical in providing services in such an environment.

This picture is different from what I observed and what can be seen from photographic evidence in this thesis. The settlement has many permanent structures in place, meaning that residents are not leaving. Research by Muinde (2013) confirmed that one of the early occupants of Bwaise 111 interviewed placed the origin of the settlement in the 1920s. This is evident that this settlement has been there long enough for the government to plan and provide for them the services they need. This is further evidenced by the UN-Habitat (2010) which argues that lack of basic services to the poor is not just attributed to their informal settlement status but rather a consequence of inadequate planning, construction and social service provision by the city. Furthermore, the informal settlers are seen as "invisible" to the authorities (Torres, 2007). The city often does not have the capacity to cater for those in the unplanned settlements, no clear policies, no financial resources, are some of the issues that challenge the officials with extending services to the unplanned settlements.

The problems of unplanned settlement differ from one country to the other but however, common to all is the structure of these settlements (as seen above in Fig.6) that are left to develop spontaneously and haphazardly often hinder implementation of water supply services whereby laying pipes and gaining access to these settlements is a major challenge to provide and improve on water services (McConville, 2014).

Politics

I asked an open question around politics and service delivery. Responses indicate politics is key to the provision of water services in Bwaise 111 Parish. Bwaise is predominantly an opposition dominated division and as such the ruling party pays little attention to the

problems existing in the area, be it water or any other. Informants also asserted that services take longer to provide for Kawempe as compared to the ruling party's areas such as Entebbe. When asked whether politics affects the way water services delivered to the peri-urban areas, respondents argued that "If the area is supporting the opposition, there is a clear chance that there is a delay in providing them with services."

Furthermore,

> Most politicians from the ruling party lobby for improved services and as a result they get them. Politicians sabotage development plans for electoral favors. Politicians take decision on what areas to provide services for example, water plus providing of water subsidies.

Politics affects the way people perceive the problems as well as the way they make decisions. This is evidenced in the findings where I interviewed the acting town clerk about the water issues in his area and he responded that, "there is no water problem in my area and in fact everybody has got access to water", but when I asked the residents they said the contrary for, they get water from wells (Interview Jan-13- 2014).

I also observed that inexperienced people have ended up occupying public offices including decision making because of their political influence. In light of the former, bickering at the division level has in most cases contributed to the delay in service provision in peri-urban poor like Bwaise 111. As one respondent pointed out; "Politics sets the policy agenda e.g. The president has twice announced programs targeting peri-urban areas ie in 2005 and in 2011 but never materialized" this has also been justified by Musiimaami and Miti (2008) arguing Kawempe Division power struggle have affected operations of the councilors in terms of delivering on their mandate.

Lambright (2012) suggests that politics plays an important role in service delivery in Uganda peri-urban poor including Kampala City Council (KCC) where Bwaise 111 parish lies in

Kawempe division. The power struggles between the ruling party and the opposition that governed the city have been a hindrance to service provision. Although the situation has changed following the 2011 elections, KCC has historically been controlled by Uganda's political opposition. The city council has been governed by the opposition for over two decades (Ibid: 1).

Since KCC has been governed by the opposition for such a long time, it's been an opportunity for the ruling party to turn the blame to the opposition that is not doing enough to provide the services to the people. So politicians use water service delivery to the people as a political weapon for their own interests (Lambright, 2012). This is evident when respondents alluded that,

> "If the area is supporting the opposition, there is a clear chance that there is a delay in providing them with services" "Most politicians from the ruling party lobby for improved services and as a result they get them" "Politicians Sabotage development plans for electorate favors".

As Lambright notes: "Not surprisingly, a habitual complaint in KCC has been that financing is too low for the council to provide adequate services to the public". A former town clerk of KCC suggested that: 'The central government wanted to show that the opposition couldn't do anything. So it didn't give Kampala the attention it needed …The government wouldn't dump the money needed into KCC while the opposition controlled it. So government wouldn't give the opposition credit' (anonymous interview with former KCC official, June 2011 cited in Lambright, 2012).

At the same time government view the informal settlers as potential voters and they have not planned in getting rid of them in order to avoid conflict, while on the other hand some governments have supported the idea of getting rid of them (Anguilar & De Fuentes, 2007).

That's why government avoids any evictions but rather uses other strategies of dealing with them.

Affordability and ability to pay constraints

The affordability of the water services by the peri-urban poor in the case study area was also researched. Some informants pointed out that although water should be made available to all as the constitution of the republic of Uganda explains it, poverty levels are high and therefore many can't afford to pay for the services hence resorting to illegal connections or fetching water from other alternatives such as wells, and springs. However, respondents noted, "Poor people don't show interest in paying for the water services delivered to them since they have alternatives." Further they noted: "As an economic good water has a price which must be paid." "Most poor prefer free water from the unprotected springs, wells and boreholes**".**

Water from such sources is unsafe for drinking and that is almost 90% contaminated (Nsubuga et al, 2004; Haruna et al, 2005). As long as the wells exist, people will always fetch water from them since it is free of charge. In effort to ensure residents get access to water, National Water and Sewerage Cooperation as a custodian of water services in the country introduced water points at a subsidized rate so that every house hold in Bwaise and Kampala at large should access water, but the cost instituted with the use of tokens became expensive to some especially after the units bought get finished.

Figures 6 and 7 bellow is an illustration of the reality of the alternative water services in Bwaise 111.

Figure 6: spring/ well

Figure 6: Water point/ spring beneath

Source: field research

Consequently as seen from figure 6, wells or spring water is an alternative source for those who can't afford paying the water bills and tokens. Figure 7 is stand point and beneath children drawing water from a spring.

Peri-urban residents are low-income earners therefore their ability to pay for the services is not reliable. The findings from the respondents such as, "Poor people don't show interest in paying for the water services delivered to them since they have alternative*s,"* contradict the literature by scholars such as (Kulabako et al, 2010; AquaConsult 2002; Musaazi et al, 2005) who argue that, when probed for the willingness to pay, more than 96% of the consumers in the Kampala's peri- urban settlements including Bwaise 111 were willing to pay. The willingness of the poor to pay for the services has been verified by water NGOs who indicate that the poor do pay but they pay three times more (WaterAid website).

Solo et al (1993) has argued that even if the affordable system was installed and finances available, collecting payments from beneficiaries so that infrastructure is maintained remains a challenge. Lack of capital to invest in the peri-urban settlements hampers revenue collection from the beneficiaries thus making the delivery problematic. Kulabako et al (2010) echoed the same sentiment of how lack of revenue collection constrains infrastructure development in urban poor areas.

The findings indicate that most of the respondents are not aware of any existing policy in their department; they all said that they are guided by the principle policy which is the National Water Policy and other regulations available. This clears shows that, it's the reason why most respondents did not see policy as a problem for them to provide water services to the peri-urban Bwaise 111. (33.3%) argued that policies were less a problem why they shouldn't provide water services to the peri-urban poor Bwaise111. This creates a great problem in the implementation if the officials are less aware of the policies. In summary, the findings from the case study show that the main constraints to water services delivery in Kampala city are about urban population growth and population density and the land tenure system.

Solutions and strategies to improve water services in Bwaise 111

Respondents made the following suggestions (not ranked) as possible solutions to the perceived constraints of provision of water services in Kampala city:

- Contracting out management or out sourcing
- Provision of pre-paid water meters,
- Introduction of innovative charges or tariffs,
- Promotion of communal water points
- Community involvement
- Extension of service connections,
- Community mobilization and sensitization,
- Setting of a social or lower tariff for the poor,
- Providing resources to pro-poor units,
- Increasing the connections to the poor,
- Extension of lines to peri-urban,
- Educating communities in rain water harvesting methods.

The suggested solutions however are significant because they stress privatization and commodification of water. Yet the problems that the same informants identified do not point to private sector solutions but to better urban planning. This is a intellectual paradox which could be further researched.

Conclusions

This chapter has presented and discussed the findings of the study. The findings have identified the constraints as perceived by the respondents in providing water services to Bwaise 111 Parish. The main constraints identified include financial, economic,

infrastructural, land tenure system, population growth and density, institutional constraints, poor policy implementation, politics, corruption a major challenge, physical and technical constraints. The above constraints all limit the utilities' ability to provide water services to Bwaise 111 parish. We found that although there was agreement about the most pressing issues, many of the issues were interlinked. Respondents also seemed to have contradictory ideas about causes and solutions to public problems

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

The main objective of this study was to explore the perceptions of mainly local government officials and service providers about their views on the constraints in providing water services to peri-urban settlements in Uganda. The paper also sought to establish the central importance of policy formulation and framing in water services to the peri-urban settlements in Uganda. As shown in the literature review (chapter 2) there is no agreement among scholars on how to define Uganda's water problem and what solutions (public or private) will be most suitable. Water supply is not merely technical but deeply implicated in political power games. However the finding of this thesis was that 100 per cent of officials thought that rapid growth in population density in informal areas coupled with the land tenure system in informal areas was the single biggest combined issue inhibiting progress.

In the context of very high mortality rates and increasing urbanization, water provision to the peri-urban areas like Bwaise 111 parish is very important issue that Ugandan policy makers have not given critical attention. Constraints such as, financial, institutional, infrastructural, land tenure system, policy, politics, corruption were seen as the major issues by officials.

The thesis attempted to provide an understanding of the major identified constraints of providing water services to peri-urban Bwaise 111 parish according to the officials. I have described how a problem gets to be identified as an urgent policy problem. It is very important to note the differences in how the officials view the problem. The thesis has also explored how officials who are the street-level bureaucrats and who implement the policies understand or misunderstand policy.

Additionally, there are a number of policies in the water sector but there is no specific policy that addresses the challenges of providing water services to peri-urban areas like Bwaisee 111 Parish. The policies are not integrated and do not adequately address the problem at hand

Furthermore, there are a number of institutions that are involved in the water sector but this thesis findings show that their mandates are often fragmented and unclear, sometimes they lack clearly defined institutional structure responsibility for the urban planning in relation to the delivery and development of water infrastructures. The lack of co-ordination among the institutions, contradictory actions and inconsistency in approaches and overlap of responsibilities give rise to conflicting decisions, wastage of scarce financial, human, technical and logistical resources were some of the institutional constraints that officials have identified as hindrances to water provision in Bwaise 111 Parish.

The majority of the officials identified physical and technical constraints as a major impediment in the provision of water services in Bwaise 111 parish. They identified, land tenure system as being always a major problem, negotiating with land owners whenever there is a new development underway has been difficult, the poor often occupy the undesirable land that is not suitable to settle on due to its location, the lack of technical personnel to repair the new water points that are manufactured in South Africa is challenge and outsourcing the technical personal is costly, the physical construction of the houses that are built close to each other further make it extremely difficult to lay pipes and provide water services to the poor.

The land tenure system was identified by majority officials to be a major constraint in providing water services to the poor. They mentioned that, the poor people often end up occupying in flood-prone or unstable land, in which provision of infrastructure services is complex and expensive. Poor people's specific needs may be overlooked in favour of overall "national" priorities. Permission from the land owners to provide and construct water

infrastructure whenever there is any development is often fruitless, and providing the services to the illegal settlers may be seen as an endorsement or some degree of legality to the residents were some of the issues the officials identified.

Additionally, politics and power was identified by the officials to be a major barrier for them to provide water services to the peri-urban poor. They pointed out that, if the area is supporting the opposition, there is a clear chance that there will be a delay in providing them with services, most politicians lobby for improved services and as a result they get the services, politicians sabotage development plans for electoral favours; politicians take decisions on what areas to provide water plus passing of loans for water provisions. The president has twice announced programmes targeting the peri-urban areas, in 2005 and in 2011.

Economically, officials viewed poor people as risky customers whose opportunity cost was very high, meaning that the ability of the poor to pay was questioned by the utility. The view was that the poor people don't show interest in paying for the water services delivered to them since they have alternatives (even very unsafe ones).

In addition, officials mentioned that, it is costly to maintain the infrastructure in the peri-urban settlements when it gets broken and needs repairing, if there were enough funds, there wouldn't be any problem why we shouldn't provide the services to the poor.

The study has emphasized the fact that policy formulation is crucial and that a rational approach to solving problems might unearth the underlying causes. Incremental approaches are unlikely to succeed in Kampala since the entire urban system needs to be redesigned.

The Rational Comprehensive Model (top-down theory) might have more usefulness as it is holistic and comprehensive. The issues of water touch on all aspects of politics, planning and participation. In Uganda it is clear that policies are made in an irrational top-down manner.

The research uncovered that there is big gap between the policy makers and the policy implementers. Those that make the policies up there do not actually know what the officials go through in trying to implement the policies. If these officials were included in the first place then decisions would be made very much in search for maximizing solutions to complex constraints like those happening in the water provision services in Uganda (Howlett & Ramesh, 2003).

Perceptions of officials show the importance of debating policy formulation as an ingredient for implementing water services to the general public. However even among officials there seems to be a disconnect between how the problems and the pro-private solutions they seem to advocate. This is a conundrum which could be further explored.

REFERENCES

Agere, S. & Mandaza, I. 1999, *Rethinking Policy Analysis and Management: Enhancing Policy Development and Management in the Public Service,* Commonwealth Secretariat.

Aldo, B. et al (2006), characteristics of well performing public water utilities, Water supply and Sanitation working notes.

Anderson, J. 2006. *Public Policy Making* Houghton Press: New York.

AquaConsult. 2002. Identification of management options for improved water and sanitation services in informal settlements in Kampala, Situation Assessment Report. Kampala: Water and Sanitation Programme (WSP) and National Water and sewerage Corporation (NWSC).

Bacwayo, K. E. 2010. Privatisation of service delivery and its impacts on Uganda's attainment of the 7th MDG. *Journal of the African Educational Research Network.* Vol 10: 2.

Baietti, A. & van Ginneken, M. 2006, "Characteristics of well-performing public water utilities", *Water Supply and Sanitation Working Notes, Note,* no. 9.

Bakalian, A. & Jagannathan, V. 1991, "Institutional Aspects of the Condominial Sewer System", *Infrastructure Notes, W&S No.SW6.Washington DC: World Bank.*

Barbara, E. 2007. Understanding the Urban Poor's Vulnerabilities in Sanitation and Water Supply, Center for Sustainable Urban Development, July 1-6, 2007. Financing Shelter, Water and Sanitation.

Bayliss, K. & Adam, A. 2012, "12 Where have all the alternatives gone?", *Alternatives,* vol. 51, no. 50, pp. 319.

Briscoe J. 1996. "Water as an economic good: the idea and what it means in practice", Paper presented at the World Congress of the International Commission on Irrigation and Drainage, Cairo.

Cain, A. and Mulenga, M., 2009. Water service provision for the peri-urban poor in Post-Conflict Angola. Human Settlements Working Paper Series Water 8, IIED, London.

Corkery, J., Land, A., & Bossuyt, J. (1995). The Process of Policy Formulation. *Policy management report*, (3).

Chirisa, I. 2010, "Peri-Urban dynamics and Regional Planning in Africa: Implications for building healthy cities", *Journal of African Studies and Development.* 2 (2):015-026.

Cross, P. & Morel, A. 2005. Pro-poor strategies for urban water supplies and sanitation services delivery in Africa. Water Sci. Technol. 51(8):51-57.

Dagdeviren, H. & Robertson, S.A. 2009, *Access to water in the slums of the developing world*, World, Working Paper No.57, Brasilia, International Policy Centre for Inclusive Growth.

Danert, K. 2010. 'Country Status Overview on Water Supply and Sanitation for Uganda.'Unpublished draft. Nairobi: AMCOW, WSP et al.

Denscombe. 2000., The Good Research Guide for Small Scale Social Research Projects; Philadelphia: Open University Press.

De Vos, A.S. (Ed.), 1998. Research at Grass Roots: A primer for the caring professions. Pretoria: Van Schaik.

Dror, Y. 1964. Muddling Through- Science or Inertia. *Public Administration Review* 24, 3:154-157.

Duflo, E., Galiani, S., Mobarak, M. 2012. Improving Access to Urban Services for the Poor: Open Issues and a Framework for a Future Research Agenda. *J-PAL Urban Services Review*

Dye, T. R. 1992. *Understanding public policy*. Englewood Cliffs, NJ: Prentice Hall. Paper. Cambridge.

Elmore, R. 1979. 'Backward mapping', *Political Science Quarterly* 94: 601-16.

Eulau, H. and Prewitt, K. 1973. *Labyrinths of Democracy*. Indianapolis: Bobbs-Merrill.

Feindt, P.H. & Oels, A. 2005, "Does discourse matter? Discourse analysis in environmental policy making", *Journal of Environmental Policy & Planning*, 7(3):161-173.

Ferman, B. 1990, "When failure is success: Implementation and Madisonian government", *Implementation and the policy process: Opening up the black box*, pp. 39-50. In: Palumbo, D.J. & Calista, D.J. (eds) *Implementation and the Policy Process: Opening up the Black Box*. London: Greenwood Press.

Flick, U. 2002. An Introduction to Qualitative Research. London: Sage Publications Ltd.

Forester, J. 1984. Bounded rationality and the Politics of Muddling Through. *Public Administration Review* 44(1):23-31.

Gard, C. and Torstensson, I. 2006. Hydrological characteristics of a settlement in peri-urban Kampala, Uganda: Sweden: Lund University.

Gamson, W.A. & Modigliani, A. 1989, "Media discourse and public opinion on nuclear power: A constructionist approach", *American journal of sociology*, pp. 1-37.

Gandy, M. 2006, "Planning, anti-planning and the infrastructure crisis facing metropolitan Lagos", *Urban Studies*, vol. 43, no. 2, pp. 371-396.

Gawthrop, L.C. 1971. *Administrative Politics and Social Change*. New York: St Martin's Press.

Gillham, B. 2000. *Case Study Research Methods*. Paston Press Ltd: New York.

Golooba-Mutebi F. 2003. Devolution and outsourcing of municipal services in Kampala city,

Gorman, G.E. & Clayton, P. 2005. *Qualitative Research for the Information Professional* .London: Facet Publishing.

Gulyani, S. & Bassett, E.M. 2007, "Retrieving the baby from the bathwater: slum upgrading in Sub-Saharan Africa", *Environment and Planning C.* 25(4):486.

Hajer, M. 1993, "Discourse coalitions and the institutionalization of practice: the case of acid rain in Great Britain", *The argumentative turn in policy analysis and planning*, pp. 43-76.

Ham, C., Hill, M. & Pollock, F. 1984, *The policy process in the modern capitalist state,* Wiley Online Library.

Handley, G. (2009) 'Sector Budget Support in Practice.' London: ODI and Mokoro.

Harrison, P., Todes, A., & Watson, V. 2007. *Planning and transformation: Learning from the post-apartheid experience*. Routledge.

Haruna, R., Ejobi, F. & Kabagambe, E.K. 2005, "The quality of water from protected springs in Katwe and Kisenyi parishes, Kampala city, Uganda", *African Health Sciences,* 5(1):14-20.

Hennink.M., Hutter.I. &Bailey.A. 2011. *Qualitative Research Methods*. SAGE Publications Ltd. Silverman, D. 2000. *Doing Qualitative Research*. London: SAGE.

Hirn, M. 2013, "Private Sector Participation in the Ugandan Water Sector: A Review of Ten Years of Private Management of Small Town Water Systems." World Bank: Washington DC.

Hogrewe, W., Joyce, S.D., Perez, E.A., Richter, J., Restrepo, H., Bhatia, V., Pelak, Z., Horejsi, J., Rotta, L. & Hanzelka, J. 1993, "The unique challenges of improving peri-urban sanitation.", *Ceskoslovenska gynekologie*. 58(6):90-103.

Howard, G. & Bartram, J. 2003, *Domestic water quantity, service level, and health,* World Health Organization Geneva.

Howlett, M., Ramesh, M. & Perl, A. 1995, *Studying public policy: Policy cycles and policy subsystems,* Cambridge University Press.

http://www.trademarkea.com/corruption-ugandas-big-challenge-museveni.

http://www-wds.worldbank.org/sevlet/main?menu.

Hudson, J. & Lowe, S. 2009. *Understanding the policy process: Analyzing Welfare Policy and Practice,* The Policy Press. Bristol.

Kampala Urban Sanitation Project (KUSP). 2006. Surveillance of the spring water sources in Kampala district. Final Report. Kampala City Council.

Kariuki. M. (WUP). 2003. Serving the Urban Poor: An Overview of Regional Experience. In Better Water and Sanitation for the Urban Poor: Good Practice from Sub-Saharan Africa. Kenya. Accessed on 09th June. 2013. From: http://web.mit.edu/urbanupgrading/waterandsanitation/resources/pdffiles/good_practices/Chapter2-Overview.pdf.

Keil, R. & Debbané, A. 2005, "Scaling discourse analysis: Experiences from Hermanus, South Africa and Walvis Bay, Namibia 1", *Journal of Environmental Policy & Planning.*7(3):257-276.

Kingdon, J.W. 2003. *Agenda's, Alternatives and Public Policies.* 2nd ed. New York: Longman Publishers.

Kjellén, M. & McGranahan, G. 2006, *Informal water vendors and the urban poor,* International Institute for Environment and Development.

Kjellén, M. 2006, "From public pipes to private hands: Water access and distribution in Dar es Salaam, Tanzania".

Kraft, M. E., & Furlong, S. R. (2012). *Public policy: Politics, analysis, and alternatives*. CQ Press.

Krishna, A. 2004, "Escaping poverty and becoming poor: who gains, who loses, and why?" *World Development.* 32(1):121-136.

Kulabako, R.N., Nalubega, M. & Thunvik, R. 2004, "Characterization of peri-urban anthropogenic pollution in Kampala, Uganda", *WEDC International Conference on people centred approaches to water and environmental sanitation*, pp. 474.

Kulabako, R.N., Nalubega, M., Wozei, E. & Thunvik, R. 2010, "Environmental health practices, constraints and possible interventions in peri-urban settlements in developing countries–a review of Kampala, Uganda", *International journal of environmental health research.*20(4):231-257.

Lasswell, H.D. 1970, "The emerging conception of the policy sciences", *Policy Sciences.* 1(1):3-14.

Leach, D. & Smith, P. 2001. Addressing the 'Wicked Issues'. In: Leach, R. & Smith, P. J. (eds), *Local Governance in Britain*. New York: Palgrave.

Leach, R. & Percy-Smith, J. 2001, *Local governance in Britain,* Palgrave.

Leach, S. 1982. In Defense of the Rational Model. In: Leach, S. & Stewart, J. (eds), *Approaches to Public Policy*. London: UNWIN

Leedy, P.D., Timothy, J., Ertmer, N. and Ertmer, P. 1997. Practical Research Planning and Design. New Jersey. USA: Prentice Hall.

Leininger, M. M. 1985. Ethnography and Ethno nursing: Models and modes of qualitative data analysis. In Leininger, M. M. (Eds.), *Qualitative research methods in nursing* (pp.33-72). Orlando, FL: Grune & Stratton.

Lindblom, C. E. 1979. Still muddling, not yet through. *Public Administration Review*, 39(6):517-526.

Lipsky, M. 1984. Bureaucratic disentitlement in social welfare programs. *The Social Service Review*, 3-27.

Lowe, S. 2009, *Understanding the policy process: analysing welfare policy and practice,* The Policy Press.

Lule, J.A. 2014. Illegal Water Connections Affect Water Supply, The New Vision Uganda Leading Daily. [On line] Available at http://www.newvision.co.ug. (Accessed on 20.03.2014).

Lustick, I. 1980. Explaining the Variable Utility of Disjointed Instrumentalism: Four Propositions. *American Political Science Review,* 74(2):342-353.

Manamela, K.F. 2010*, An investigation of water delivery constraints at Mabokelele village, Limpopo Province, South Africa.*

Martin, R., Donald, S. 1996. Frame-critical policy analysis and frame-reflective policy practice. *Knowledge & Policy*, 9(1):85.

May, T. 2001. Social Research: Issues, Methods and Process, 3rd edn. Milton Keynes: Open University Press.

McConville, J. 2014. The Peri-Urban Context. In: McConville, J. & wittgren, H. B (eds) Peri-Urban Sanitation and Water Service Provision-Challenges and opportunities for developing countries. SEI Project Report. Stockholm: Stockholm Environment Institute.

McDonald, D.A. & Ruiters, G. 2005, *The age of commodity: Water privatization in Southern Africa*, Earthscan.

McGranahan, G. & Satterthwaite, D. 2006, *Governance and getting the private sector to provide better water and sanitation services to the urban poor,* International Institute for Environment and Development London, England.

Ministry of lands, Housing and Urban Development (2011). National Physical Planning Standards and Guidelines, Kampala, Directorate of Physical Planning and Urban Development.

Ministry of Water and Environment (2000). The National Water Policy. Kampala, Uganda.

Ministry of Water and Environment (2009). Uganda Water and Environment Sector Performance Report. Ministry of Water and Environment, Kampala Uganda.

Ministry of Water and Environment (2010). The 2010 Uganda Water Supply Atlas, Kampala.

Ministry of Water and Environment (2010). Uganda Water and Environment Sector Performance Report. Ministry of Water and Environment, Kampala Uganda.

Mitlin, D. 2004, "16. Competition, regulation and the urban poor: a case study of water", *Leading Issues in Competition, Regulation, and Development*, , pp. 320.

Muinde, D. K. (2013). *Assessing the effects of land tenure on urban developments in Kampala* (Doctoral dissertation, M. Sc. thesis. Faculty of Geo-Information Science and Earth Observation. University of Twente. http://www. itc. nl/library/papers_2013/msc/upm/muinde. pdf. Accessed 29 May 2013).

Musiimaami, D. and Miti, J.(2008).Kawempe Division Councilors Reject Assistant Town Clerk, The Daily Monitor Uganda.[On line] Available at http://www.monitor.co.ug. (Accessed on 06.03.2014).

Mwanza, D. D. 2001. People and Systems for Water, Sanitation and Health. Paper Presented on 27th WEDC Conference. Lusaka. Zambia.

Nathanson, C.A. 1999, "Social movements as catalysts for policy change: the case of smoking and guns", *Journal of health politics, policy and law*, 24(3):421-488.

Neuman, W.L. 2003. Social Research Methods: Qualitative and Quantitative Approaches. 5thEdition. Pearson Education, Inc. United State of America.

Nice, D.C. 1987. Incremental and Non-incremental Policy Response: The States and Railroads. *Polity* 20:145-156.

Nichodemus, R..; Bategeka,L., & Banga, M. 2003. *Beneficiaries of water service delivery in Uganda.* Research series No 37.

Nleya, N. 2011, "Citizen Participation and water services delivery in Khayelitsha, Cape Town."

Norstrom, A. 2007. Planning for Drinking Water and Sanitation in Peri-Urban Areas: a proposed framework for strategic choices for sustainable living. Swedish Water House Report 21. SIWI, Stockholm.

Norstrom, A., McConville, J, Kain, J-H. 2009. 'The complexity of water and sanitation provision in peri-urban areas in developing countries: The example of Adenta, Ghana. Vatten 65: 237-245.

Nsubuga, F. B., Kansiime, F. Okot-Okumu, J. 2004. Pollution of protected springs in relation to high and low density settlements in Kampala-Uganda. Phys Chem of the Earth. 29:1153-1159

O'Meally, S. (2011). Uganda and rural water supply: major strides in sector coordination and performance. *London: ODI*.

Pangare, G. & Pangare, V. 2008, "Informal Water Vendors in Uganda: The Ground Reality", *Water Dialogue, Kampala, Uganda,* pp. 1-37.

Parkinson, J., Tayler, K. 2003. Decentralised wastewater management in peri-urban areas in low-income countries. Environment Urbanist. 15 (1).

Payne, G. 2005, "Getting ahead of the game: A twin-track approach to improving existing slums and reducing the need for future slums", *Environment and Urbanization,* 17(1):135-146.

Prain, G. & Lee-Smith, D. 2010, "Urban agriculture in Africa: what has been learned?" in *African Urban Harvest* Springer, pp. 13-35.

Public Private Infrastructure Advisory Facility. 2001. New Designs for Water and Sanitation Transactions: Making Private Sector Participation Work for the Poor, PPIAF Washington, D.C.

Punch. K. F. 2005. Introduction to Social Research: Quantitative and Qualitative Approaches 2nd Edition. Sage Publications, New Delhi

Rein, M. & Schön, D. 1996, "Frame-critical policy analysis and frame-reflective policy practice", *Knowledge and policy,* 9(1):85-104.

Rogers. P., R. Bhatia, A. Huber. 1997. "Water as a social and economic good: How to put the principle into practice". Reading for the Water Resource Management Course, World Bank.

Rose-Ackerman, S. 1999, *Corruption and government: Causes, consequences, and reform,* Cambridge University Press.

Rouse, M. 2013. The Urban Water Challenge, *International Journal of Water Resource Development,* Oxford, Oxford Centre for the Environment.

Satterthwaite, D. 2005, "Meeting the MDGs in urban areas; the forgotten role of local organizations", *Journal of International Affairs,* 58(2):87-112.

Satterthwaite, D., MacGranahan, G. & Mitlin, D. 2005, *Community-driven development for water and sanitation in urban areas: Its contribution to meeting the Millennium Development Goal targets,* Iied.

Saunders. M, Lewis. P, Thornhill. A. 1997: Research Methods for Business Students; Financial Times Management, London

Schneider, A.L. and Ingram, H. 1997. *Policy Design for Democracy*. Lawrence: University Press of Kansas.

Seragelden, M.1990. The Impact of Investment in Urban Infrastructure on Municipal Revenues and the Integration of Informal Sector Activities: The Abidjan Experience. Washington, DC: U.S. Agency for International Development, Bureau for Asia & Private Enterprise; Office of Housing & Urban Programs.

Sharma, G., & Shukla, S. 2009. Global experiences on expanding services to the urban poor. India: World Bank.

Sheuya, A. S. 2008. Improving the health and lives of people living in Slums. Annal NY Acad Sci. 1136(1): 298-306.

Solo, T.M., Joyce, S. & Perez, E. 1993, *Constraints in providing water and sanitation services to the urban poor,* Water and Sanitation for Health Project.

Sunday Times, South Africa. 1998. "Water for 75,000 Capetonia." 4th October 1998.

Swyngedouw, E. 2010, "Apocalypse forever? Post-political populism and the spectre of climate change", *Theory, Culture & Society,* 27(23):213-232.

Syngellakis, K. & E. Arudo 2006**.** Uganda: Water Sector Policy Overview Paper. Available online: http://www.enable.nu/publication/Water_Policy_Overview_Uganda.pdf [accessed on 8th of May, 2014].

Taylor, S. & Bogdan, R.1994. Introduction to qualitative research methods: the search for meanings. New York: John Willey & Sons.

The cities alliance. 2002. Enhancing access to basic infrastructure services for the urban poor and vulnerable groups in Vietnam. Housing and Infrastructure - Constraints Faced by the Urban Poor.

The Republic of Uganda, 1999. National Water Policy (NWP).

The Republic of Uganda. 1999. *National Water Policy,* Ministry of Water, Lands and Environment, Kampala.

Torres, H., Alves, H. & De Oliveira, M.A. 2007, "São Paulo peri-urban dynamics: some social causes and environmental consequences", *Environment and Urbanization,* 19(1):207-223.

Trade Mark East Africa, 2014. Corruption, Uganda's big Challenge. *The African Report*

Trémolet, S. & Hunt, C. 2006, "Taking account of the poor in water sector regulation", *Water supply and sanitation working note,* vol. 11.

Turton, A.R. 2013, "A southern African perspective on transboundary water resource management.", *Environmental Change and Security Project Report,* , 9:75-87.

Uganda Bureau of Statistics. 2008. Spatial trends in poverty and inequality in Uganda: 2002–2005. Available at http://www.ugandaclusters.ug/PVRTYINQLTY/ index.html (accessed 19th March 2013).

Uganda Bureau of Statistics (UBOS), 2012. Statistical Abstract 2012. Kampala: UBOS Statistical House. Available at www.ubos.org (Accessed May 2013).

Uganda Water and Sanitation NGO Network - UWASNET (October, 2011). NGOs in the Ugandan Water and Sanitation Sector Performance Report for FY 2010/11. As retrieved from http://www.uwasnet.org.

Uganda: 2011. An early assessment. Public Admin Develop. 23:405–418.

United Nations Conference on Trade and Development (2009) 'The Least Developed Countries Report: The State and Development Governance.' Geneva: UNCTAD.

United Nations Development Programme (UNDP). 2010. 'Human Development Index 2010.' Available at: http://hdr.undp.org/en/statistics/.

United Nations Habitat 2003. Water and Sanitation in the World's Cities: Local Action for Global Goals, Earth scan, London.

United Nations. 2003. The United Nation World Water Development report- water for people, UNESCO and Berghan Books, Barcelona.

United Nations - Habitat. 2007. Situation analysis of informal settlements in Kampala. Cities without Slums sub-regional progamme for Eastern and Southern Africa.Kivulu (Kagugube) and Kinawataka (Mbuya I) Parishes. Nairobi, UN-Habitat.

United Nations-Habitat. 2010. *The State of African Cities: Governance, Inequality and Urban Land Markets.* United Nations Human Settlements Program, Nairobi.

Vermeiren, K., Van Rompaey, A., Loopmans, M., Serwajja, E., & Mukwaya, P. (2012). Urban growth of Kampala, Uganda: Pattern analysis and scenario development. *Landscape and Urban Planning*, *106*(2):199-206.

Walliman, N 2006. *Social Research Methods*: London Sage

Water Aid. 2006. Urbanisation and Water. Water Aid Website: http://www.wateraid.org/documents/plugin_documents/ waterreformsandpsptanz.pdf. Accessed on the 20th of June 2013.

Water and Environment Sector Performance Report (WESPR). 2013. Government of Uganda. Ministry of Water and Environment: World Bank.

Water and Sanitation Sector Performance Report, (WSPR). 2006. Government of Uganda. Ministry of Water and Environment: World Bank.

Water Sanitation Program (WSP). 2002. 'Water and Sanitation Sector Reform in Uganda: A Government-Led Transformation.' Nairobi: WSP Africa.

Water Utility Partnership (WUP). 2003. Better Water and Sanitation for the Urban Poor: Good Practice from Sub-Saharan Africa**.** World Bank.

Welle, K. 2006, "Water Aid water point mapping in Malawi and Tanzania", *Water Aid Learning for Advocacy and Good Practice.*

Welman, C., Kruger, F., & Mitchell, B. 2005. *Research Methodology*. Oxford University Press. South Africa.

World Bank. 2009. 'IDA Work in Uganda: Water and Sanitation.' Available at: http://web.worldbank.org/WBSITE/EXTERNAL

World Health Organization (WHO). 2009. Diarrhoea: why children are still dying and what can be done.

Yin R. 1994, *Case Study Research. Design and Methods: Applied Social Research Methods Series,* SAGE Publications, New Delhi.

APPENDIX A

INTERVIEWEES

Position	Date	Number	Institution
Pro-poor branch manager	11-12-2013	1	NWSC
Chief manager commercial and customer services	12-12-2013	1	NWSC
Chief manager engineering services	12-12-2013	1	NWSC
Chief Manager Institution and Development	12-12-2013	1	MWE
Director Health services and environment	8-01-2014	1	KCCA
Local council officials	08-01-2014	2	KCCA
Councilors	09-01-2014	2	KCCA
Physical planning officials	09-01-2014	3	MWE
Public health and environment officer	9-01-2014	1	KCCA
Water and sanitation officials KCCA	10-01-2014	5	KCCA
District water officers	11-01-2014	4	NWSC
Technical support officials	12-01-2014	2	NWSC
Monitoring and assessment	12-01-2014	2	MWE
Quality assurance manager	12-01-2014	1	MWE
Town Clerk	13-01-2014	1	NWSC
Division Mayor	13-01-2014	1	NWSC
Manager infrastructure development	15-01-2014	1	MWE

APPENDIX B

UNIVERSITY of the WESTERN CAPE

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

SCHOOL OF GOVERNMENT

18 November 2013

To whom it may concern,

STUDENT: Mr Faridah Mirembe ST.NUMBER: 2656434

This letter serves to inform that the above mentioned student is registered with the School of Government, reading towards her Master in Public Administration (MPA). The information required by Ms Mirembe is needed for her research, which focuses on "Exploring perceptions of Government Constraints in providing water services to the Peri – Urban settlements Uganda – A case study of policy formulation in Bwaise 3." We request that she be granted access to the relevant information by conducting interviews and / or surveys.

For further details please contact our office on 021-9593803 / 50.

Sincerely,

.....
Mrs. L Festers
Senior Administrator

SCHOOL OF GOVERNMENT
18 NOV 2012
UNIVERSITY OF WESTERN CAPE

Private Bag x17, Bellville 7535, South Africa
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APPENDIX C

KCCA
KAMPALA CAPITAL CITY AUTHORITY
For a better City

DIRECTORATE OF PUBLIC HEALTH AND ENVIRONMENT

REF: PHD/KCCA/600/201

8th January, 2014

Ms. Mirembe Faridah,
Faculty of Economics and Management Science,
University of the Western Cape.

RE: PERMISSION TO CARRY OUT RESEARCH ENTITLED "EXPLORATION OF PERCEPTION OF GIVERNMENT CONSTRAINTS IN PROVIDING WATER SERVICES TO THE PERI URBAN SETTLEMENTS: A CASE STUDY OF POLICY FORMULATION IN BWAISE III"

I refer to your letter dated 7th January, 2014 requesting for permission to carry out the above research in Bwaise III Parish.

This is to inform you that permission has been granted to you to carry out the above mentioned research in Bwaise III Parish from 9th to 18th January, 2014.

The above permission is granted to you on the following conditions:

1) Data collection from the parish is further subject to obtaining permission from the Chairman L.C II of that parish.

2) Provision of report to our office after your final data analysis.

I wish you success.

By copy of this letter, the Town Clerk Kawempe Division and the Ward Administrator Bwaise III Parish s are requested to offer you all the necessary assistance.

(Dr. Okello Ayen Daniel)
AG. DIRECTOR PUBLIC HEALTH SERVICES AND ENVIRONMENT

c.c. The Town Clerk,
Kawempe Division.

c.c. Ward Administrator , Bwaise III Parish.

P. O. Box 7010 Kampala- Uganda
Plot 1-3 Apollo Kaggwa Road
Tel: 0414 231 446 / 0204 660 000
Web: www.kcca.go.ug, Email: info@kcca.go.ug
f: facebook.com/kccaug, t: @KCCAUG

APPENDIX D

KCCA
KAMPALA CAPITAL CITY AUTHORITY
For a better City

OFFICE OF THE TOWN CLERK
KAWEMPE DIVISION URBAN COUNCIL
P.O BOX 7010, KAMPALA

OUR REF: KDUC/KCCA/201/17

10th January 2014

The Chairman LCII, Bwaise III Parish

Kawempe Division.

Re: **INTRODUCTION OF MS MIREMBE FARIDAH**

This is to introduce to you Ms. Mirembe Farida a student of the University of the Western Cape, Faculty of Economics and Management Science.

She is conducting a research entitled ***"exploration of perception of the government constraints in providing water services to the peri-urban settlements: a case study of policy formulation in Bwaise III".***

This letter requests you to give her the necessary assistance to enable her collect the data for the research.

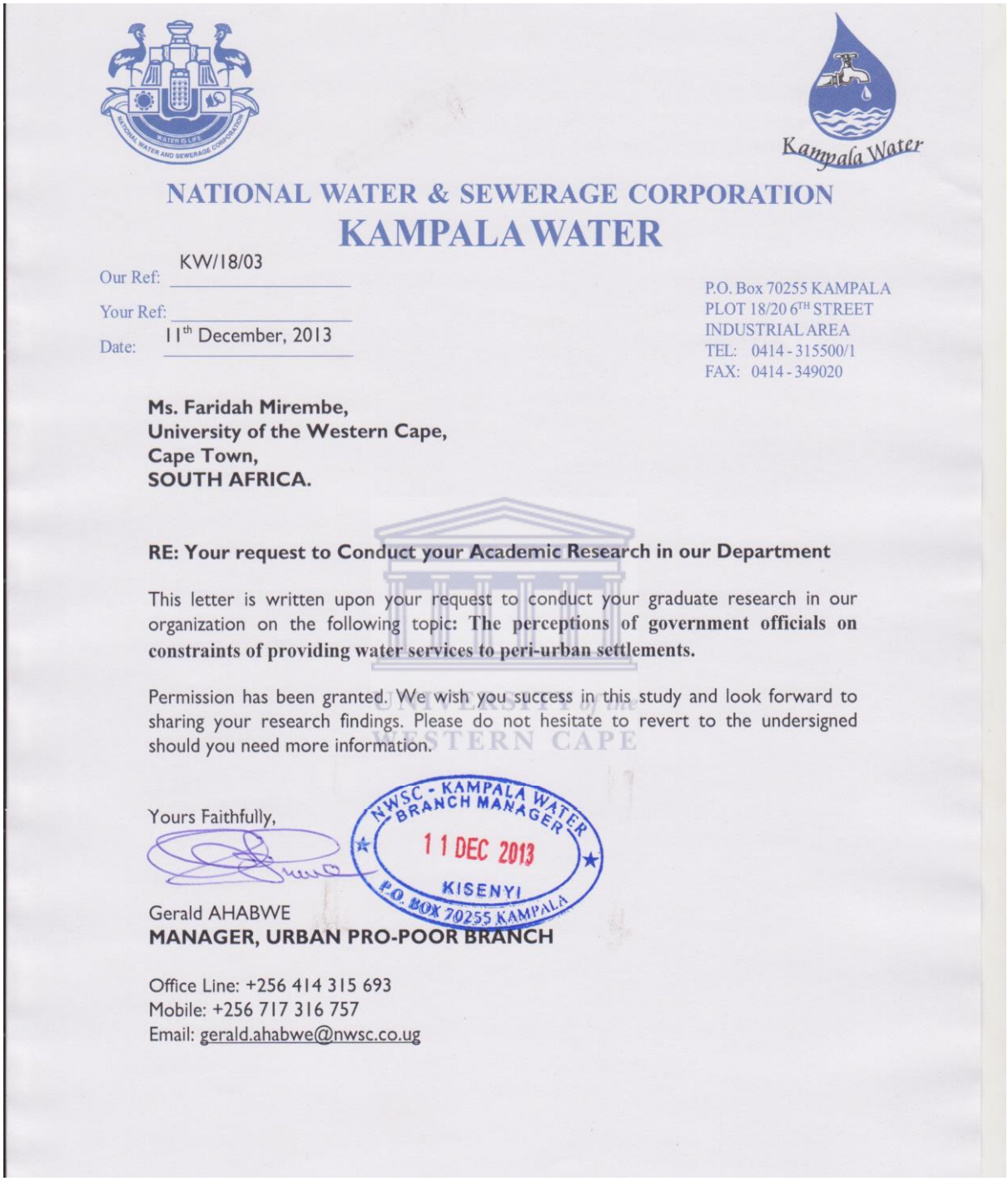
Robert Katungi

Ag. **TOWN CLERK**

KAMPALA CAPITAL CITY AUTHORITY
KAWEMPE DIVISION URBAN COUNCIL
KCCA
13 JAN 2014
TOWN CLERK'S OFFICE

P. O. Box 7010 Kampala- Uganda
Plot 1-3 Apollo Kaggwa Road
Tel: 0414 231 446 / 0204 660 000
Web: www.kcca.go.ug, Email: info@kcca.go.ug
f: facebook.com/kccaug, t: @KCCAUG

APPENDIX E



NATIONAL WATER & SEWERAGE CORPORATION

KAMPALA WATER

Our Ref: KW/18/03

Your Ref:

Date: 11th December, 2013

P.O. Box 70255 KAMPALA
PLOT 18/20 6TH STREET
INDUSTRIAL AREA
TEL: 0414 - 315500/1
FAX: 0414 - 349020

Ms. Faridah Mirembe,
University of the Western Cape,
Cape Town,
SOUTH AFRICA.

RE: Your request to Conduct your Academic Research in our Department

This letter is written upon your request to conduct your graduate research in our organization on the following topic: **The perceptions of government officials on constraints of providing water services to peri-urban settlements.**

Permission has been granted. We wish you success in this study and look forward to sharing your research findings. Please do not hesitate to revert to the undersigned should you need more information.

Yours Faithfully,

NWSC - KAMPALA WATER BRANCH MANAGER 11 DEC 2013 KISENYI P.O. BOX 70255 KAMPALA

Gerald AHABWE
MANAGER, URBAN PRO-POOR BRANCH

Office Line: +256 414 315 693
Mobile: +256 717 316 757
Email: gerald.ahabwe@nwsc.co.ug

APPENDIX F

Questionnaire

All participants are kindly requested to fill in this questionnaire. The results will be used to evaluate the perceptions of government officials on constraints of providing water services to peri-urban settlements such as Bwaise 111, in Kawempe division. This questionnaire is for academic research purposes, as government officials the mandated service providers, your co-operation in completion of this questionnaire will be highly appreciated. I assure confidentiality and anonymity in your responses.

The questionnaire consists of 30 main questions with various sub-sections. The questions posed cover the following topics (in no particular order);

- Back ground and Problem definition
- Constraints
- Solutions to the constraints

Section A: Background and problem definition

1. What is the problem with providing water services to the poor?.....

   ……

   ……

2. Who causes the problem? And why?.....

   ……

   ……

3. How does the policy (policies) see the causes and origins of the problem…….

   ……..……

……

4. Do you think population growth affects the way you deliver water services to the peri-urban areas and
how?.....

……

……

5. Does policy offer piecemeal or comprehensive definitions of the
problem?.....

……

……

6. Does the policy address delivery of water provision in peri-urban areas?

……

……

7. What is the NWSC/MWE/KCC policy on water provision in peri-urban areas?

……

……

8. Is there any comprehensive policy that addresses provision of water services in the peri-urban
areas?.....

……

9. How do you maintain provision of water services to the peri-urban settlements?

……

……

10. Does politics affect the way you deliver water services to the peri-urban areas? If yes, how?

……

……

11. Has corruption been a major constraint in for you to provide water services to the peri-urban areas? Answer yes or no and why?

……

……

12. What is the role of the ministry in providing water services to the peri-urban areas?

……

……

13. What challenges do the NWSC/MWE/KCC face in providing water services to the peri-urban areas?

……

……

14. What are the legislations in place regarding water delivery services?

……

……

15. Who implements water policies in Kampala, particularly in peri-urban areas like in Bwaise?

……

……

16. Do people in peri-urban areas pay the same amount as those in urban areas? Answer yes/or and why?

……

……

17. Do you think KCC/MWE/NWSC has got regulations in place to address water provision services? Answer yes/ no and if any which ones are they?

……

……

18. As an institution, do you have internal water policies?

……..

……

19. How do you ensure that adequate water services are provided to the peri-urban areas?

……

……..

20. Is there any "information gaps" in the policies?

……

……

21. What are those gaps?

……

……

Section B: Constraints

What are the water delivery constraints faced by the NWSC/MWE/KCC?

This section explores your attitudes and perceptions regarding the constraints of providing water services to the peri-urban settlements**.**

Please rank in order of 1 to the most important constraint that the institution faces in providing water services to the peri-urban areas.

Allocate a rank 1 to the most important constraint, a rank of 2 to the second most important reason, etc. allocate a rank 6 to the least important constraint of providing water services to the peri-urban areas.

1. Financial constraints……[ ]
2. Infrastructural constraints……[ ]
3. Dense population……[ ]
4. Poor policies……[ ]
5. Vandalism……[ ]
6. Physical and technical constraints……[ ]
7. Lack of additional land……[ ]
8. Corruption in institutions……. [ ]
9. Institutional constraints……....[ ]
10. Land tenure system…….……[ ]

Section C: Solutions and Plans

1. What strategies are in place to address the water delivery constraints and how effective are they?

   ……

   ……

   ……

2. What other strategies should the NWSC/ MWE/KCC consider in order to deal with the constraints more effectively?

   …….

   ……..

3. Does policy offer piecemeal or comprehensive solutions of the problem? Answer yes /no and why?.....

   ……..

   ……

4. What solutions are the utilities doing to improve water services to the peri-urban areas?……..

   ……

   ……

5. What policy level incentives government has got in place to enhance service delivery to the urban poor?.....

   ……

   ……

   ……

6. Is the government doing enough to address the challenges its faces in providing water services to the peri-urban settlements? Answer yes/or and how?.....

   ……

   ……

7. Is there any plan for meeting the water MDG Target or equivalent by 2015?

……

8. Is there any lead ministry responsible for water service delivery?

……

……

9. Is there clear separation of institutional roles?

……..

……

10. Are the actors responsible for delivering water services to the poor adequately resourced? Particularly the local government?

……..

……

11. Is there an alternative framework for performance monitoring?

……

……