COMMUNICATION STRATEGIES USED BY LUSAKA WATER AND SEWERAGE COMPANY FOR COMMUNITY PARTICIPATION IN THE MAITENEKE SEWER REHABILITATION PROJECT IN MATERO TOWNSHIP

BY

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THE UNIVERSITY OF ZAMBIA

LUSAKA

2015

Declaration

I, FRANCIS JAMAN PHIRI declare that this report:

a). Represent my own work

b). Has not previously been submitted for a degree at this or any other University and;

c). Does not incorporate any published work or material from another report

Francis Jaman Phiri

Signed:……

Date:……

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Approval

The report of FARNCIS JAMAN PHIRI is approved as partial fulfillment of the requirements for the award of Master of Communication for Development (MCD) Degree by the University of Zambia.

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ABSTRACT

This report is based on a study that sought to evaluate the effectiveness of the communication strategies used by Lusaka Water and Sewerage Company for community participation in the Maiteneke sewer network project in Matero Township. The case has been analyzed with a bias to the nature and functionality of the communication process involved so as to establish linkages between varying variables. The report has investigated with respect to this particular case the importance of the communication strategy, its nature and utility.

Zambia has observed improvements in the provision of clean water: The proportion of the population without access to an improved water source has decreased from 51 percent in 1990 to 36.9 percent in 2010. However, the proportion of the population without access to improved sanitation facilities is not getting any better. On the contrary, it worsened from 26 percent in 1991 to 67.3 percent in 2010 (UNDP, 2013 p.12).

The study used mixed research methods. Most particularly, convergent parallel mixed methods were used. Following Creswell's (2014) description of convergent parallel mixed methods as a method which merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem, the current study collected quantitative and qualitative data at the same time and integrated into the interpretation of overall results. . Both quantitative and qualitative data was collected using questionnaires, in-depth interviews, focus group discussions and document analysis.

The research findings indicate that, despite having a comprehensive communication plan in place, the only channels used by LWSC were; community meeting, dropping of letters and door to door awareness campaign to deliver the messages to the target audience. The study has brought out some important findings, among them is the fact that the respondent's area of residence which is also a reflection of the educational levels attained and economic status did not seem to have an influence on their understanding of the communication strategies used for them to participate in the project.

There were varying perceptions of the community with regards to communication strategies used by LSWC with some participants (58%) indicating that they were satisfied with communication strategies used while (42%) were not satisfied with the strategies. The means of communication were not very successful and the whole project needed to improve a lot in terms of communication strategies.

Dedication

To the late Mr Felix Chansa and Mrs Justina Chansa Phiri

Even though I walk through the valley of the shadow of death, I will fear no evil, for you are with me; your rod and your staff, they comfort me. Psalm 23:4

I will forever love and cherish you!

(R.I.P)

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LIST OF ABBREVIATIONS

CDF	Constituency Development Fund
GRZ	Government Republic of Zambia
LUDC	Lusaka Urban District Council
LWSC	Lusaka Water and Sewerage Company
MDGs	Millennium Development Goals
MP	Member of Parliament
NWASCO	National Water and Sanitation Council
PUA	Peri-Urban Area
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations International Children Emergency Fund
USA	United States of America
WHO	World Health Organisation

INTRODUCTION

Various countries have a natural tendency towards development. At the international level, the call and commitment towards development, especially among least developed countries was vivid through the establishment of Millennium Development Goals (UNDP 2002, p.2). In order to meet the goals, various countries have committed resources in different forms. Because development is a multidimensional process (Todaro and Smith 2010, p.16), one aspect that contributes to development is the state of water and sanitation for each country. To better undertake such activities, communication becomes a relevant vehicle. This is why UNICEF (2015, p.5) recognizes that communication for development is a two-way process for sharing ideas and knowledge using a range of communication tools and approaches that empower individuals and communities to take actions to improve their lives.

Research has shown that all development projects are better of communicated to people in order to ensure participation and project sustainability. In this view studies by Adedokun and others (2010, p.27) established that effective communication would lead to active participation of members in community development. It was also revealed that when community groups are closely involved in communication strategy, it helps them take ownership of the initiative of development rather than seeing themselves as mere beneficiaries of development. In addition, Braimoh (1988), is of the view that communication is an essential tool for the establishment and maintenance of a good social and working relationship. It is therefore, justifiable to say that communication remains a vital means for undertaking developments in communities.

In September 2002, the World Summit on Sustainable Development in Johannesburg reaffirmed the Millennium Development Goals and added specific targets on sanitation and hygiene. By including sanitation and hygiene in the Millennium Development Goals and in the Johannesburg Plan of Implementation, the global community has acknowledged the importance of promoting sanitation and hygiene as development interventions and has set a series of goals and targets. These sanitation and hygiene targets as outlined from the World Summit on Sustainable Development (2002, p.12) are as follows:

- Halve, by 2015, the proportion of people without access to basic sanitation

- Improve sanitation in public institutions, especially schools
- Promote safe hygiene practices
- Promote affordable and socially and culturally acceptable technologies and practices
- Integrate sanitation into water resources management strategies
- Implement plans, national policies and incentives for waste minimization and improved recycling and use of wastewater
- Develop innovative financing and partnership mechanisms
- Build institutional capacity and develop programmes for waste collection and disposal services for unserved populations; strengthen existing information networks.

Zambia has observed improvements in the provision of clean water: The proportion of the population without access to an improved water source has decreased from 51 percent in 1990 to 36.9 percent in 2010 (UNDP, 2013, p.12).

However, the proportion of the population without access to improved sanitation facilities is not getting any better. On the contrary, it worsened from 26 percent in 1991 to 67.3 percent in 2010 (UNDP, 2013, p.12).

Zambia is therefore well off track to achieve the MDG target of 13 percent by 2015. This disturbing trend is partly explained by the increase in informal human settlements without basic sanitation facilities, the high cost of sanitation infrastructure and the low returns to these investments for the private sector, especially in rural areas, partly by a methodology change.

The need for public engagement and state action in this area is of paramount importance. Massive sanitation infrastructure investments and social campaigns on healthy sanitary behaviour can turn around this trend. Poor sanitation is the breeding ground for day-to-day ill health, low productivity and large epidemics that destroy communities. That is why to mitigate against this, within Lusaka's Maiteneke area of Matero Township, local authorities undertook sewer rehabilitation project in 2013 in order to improve the conditions and consequently develop the area.

Traditionally, “water supply” and “sanitation” appear together as an inseparable concept in public statements; sometimes “hygiene” is also included. Sanitation and hygiene usually disappear, however, when it comes to policy-making, planning, budgeting and implementation. Since the health and environmental benefits of improved sanitation and hygiene are enjoyed by the community at large, there should be genuine public interest in expanding access to sanitation. Yet many feel powerless to act on an issue that is still shrouded in cultural taboos or stigma.

To this effect there should be deliberate effort to engage and encourage community participation in Sanitation projects by using various communication strategies of informing the community on the importance of Sanitation and Hygiene. The Communication Strategies should clearly define:

- The audience receiving the information (the who);
- The content of the information (the what)
- The methods to be used to convey the information (the how); and
- The approaches to promote action for change (the action).

This is achieved through advocacy, interpersonal communication and community mobilization with overall multi-media support including mass media, digital media and social media.

As Akinpelu (2002, p.8) points out, the target of such development are human beings and not the material accumulation surrounding them or of the economic growth of the nation. This is why people have to be involved in the overall development. The involvement is made possible by the means of communication strategies at work.

This study therefore, aims at evaluating the effectiveness of the communication strategies used by Lusaka Water and Sewerage Company in resolving sewer problems in Maiteneke. The case has been analyzed with a bias to the nature and functionality of the communication process involved so as to establish linkages between varying variables. The paper has investigated with respect to this particular case the importance of the communication strategy, its nature and utility.

This report has seven chapters. Chapter one presents the background information to the study, statement of the problem, significance of the study, objectives, and research questions. In Chapter two, the report presents the literature reviewed on the subject of communication strategies in water and sanitation related projects. The literature is focused on the global level, the African region and Zambia as a case for the current study. This is for the purpose of learning lessons from what has happened elsewhere, the communication strategies they applied and establish the gaps. Chapter three provides a highlight of research methodology with focus on research design, research methods, data analysis and ethical considerations and limitations. In Chapter four, the report describes the conceptual and theoretical frameworks on which the current study is anchored in order to realise the objectives. Chapter five presents findings of the study and chapter six presents the discussion of findings. In Chapter seven, the report presents the conclusion and recommendations on the subject as well as possibilities for future research.

CHAPTER ONE
BACKGROUND INFORMATION

1.1. Introduction

This chapter deals with the description of the background information of LWSC which is the water utility company for Lusaka Province and Maiteneke area of Matero Township, where the research study was carried out. Specifically, it outlines the key issues pertaining to the research strategy, description of the statement of the problem, objectives, research questions and the significance of the study.

1.2. Lusaka Water and Sewerage Company

Lusaka Water and Sewerage Company is a quasi-government institution established out of the water and sewerage department of Lusaka City Council (LCC) but operating as a commercial water utility company providing water and sanitation services to Lusaka province. Although the company was created in 1988 under the Companies Act, it only commenced operations in 1990.

From the time of its inception until 2008, LWSC was wholly owned by Lusaka City Council. In 2008 LWSC was requested by GRZ to take over operations in the whole of Lusaka Province with the objective of "Providing quality Water and Sanitation services to customers in Lusaka Province at Commercially and Environmentally sustainable levels." With the councils of Lusaka city, Kafue, Chongwe, and Luangwa being share holders, LWSC is regulated by the National Water and Sanitation Council (NWASCO) and is the only license holder for the province of Lusaka (LWSC, 2012, p.5).

The Capital city, Lusaka, has the largest population density in the province and an estimated population of around two million people. This represents 20% of Zambia's total population. Roughly 60% of Zambia's urban population resides in informal settlements called peri-urban areas (PUAs). In Lusaka alone, approximately 70% of the population lives in the peri-urban areas. Most peri-urban areas came up as illegal/squatter settlements that were later legalized.

These areas are characterized by haphazard layout of housing with no properly defined walkways or streets; high population densities and high poverty levels. This presents a challenge in terms of service provision, both water and sanitation.

The planned PUAs are provided with well designed services while in the unplanned parts of the PUAs, the services are poor and in some cases, nonexistent with the residents relying on the supply from the entrepreneurial local residents that collect the water from far and resell. Statistics show that about 65% and 72% of the residents of the peri-urban and low cost areas do not have access to sustainable water supply and acceptable sanitation respectively.

Legal Framework

The Local Government Act No. 22 of 1991 gives local authorities the prime responsibility for the provision of Water Supply and Sanitation services to all areas within their boundaries. The local authorities are empowered to make by-laws, set standards and guidelines for provision of services.

The Water Supply and Sanitation Act No. 28 of 1997 specifies that local authorities may provide Urban Water Supply and Sanitation services and establishes the National Water Supply and Sanitation Council (NWASCO) as the regulator for the Water Supply and Sanitation sector. Local authorities may provide services by themselves or through commercial utilities licensed and regulated by NWASCO.

The present Water Act from 1948 is concerned with the development and management of surface water resources, but does not deal with groundwater. A revision of the Water Act was done in 2007. The Environmental Protection and Pollution Control Act of 1990 deals with protection of the environment and control of pollution. The Public Health Act of 1995 has provisions for the management of sanitation and prevention of pollution to water supplies by the local authorities (Kapenda, 2012, p.14).

1.2.1. Matero Township and the Maiteneke Sewer Network Project

Matero is one of Zambia's oldest townships with a current population estimate of 110,000. The Water and Sewer networks were laid in the early 1960s to cater for a population of less than 30,000 (The Post, 2014, p.4). Now with the increase in population, coupled with the ageing water and sanitation infrastructure, the situation has resulted in overloading of the sewer network in particular.

The National Water Supply and Sanitation Council (NWASCO) on 8th January, 2013 directed Lusaka Water and Sewerage Company to use K3.7 Million sanitation surcharge and address the poor sanitation in Lusaka's Maiteneke area of Matero Township. The sanitation surcharge is a charge levied on water consumption as a proportion of the monthly water bill (up to 3%) of each customer apart from those serviced by public water points (NWASCO, 2014, p.22).

A spot check inspection undertaken by NWASCO in 2013 revealed that the design capacity of the infrastructure was way exceeded because there were more people in the area than originally planned for. Further the inspection showed that the infrastructure was very old and is constantly under repair by Lusaka Water and Sewerage Company. To compound this, illegal structures have been built on top of the sewer lines making it difficult for the utility company to access the lines in times of rehabilitation. About 600 properties translating to a population of 4,800 were affected in the area.

It is against this background that NWASCO allowed Lusaka Water and Sewerage Company to use the sanitation levy to address the poor sanitation in the area by re-designing the sewer network. The bill of quantities for the project stood at K3.7 million and works were expected to be completed within six months.

NWASCO, sternly warned customers against vandalizing water and sanitation facilities especially building on top of service lines as doing so was to work against the gains being made. Once found wanting, the Water Supply and Sanitation Act slaps 100 thousand penalty units equivalent to K18, 000 or 5 years imprisonment or both.

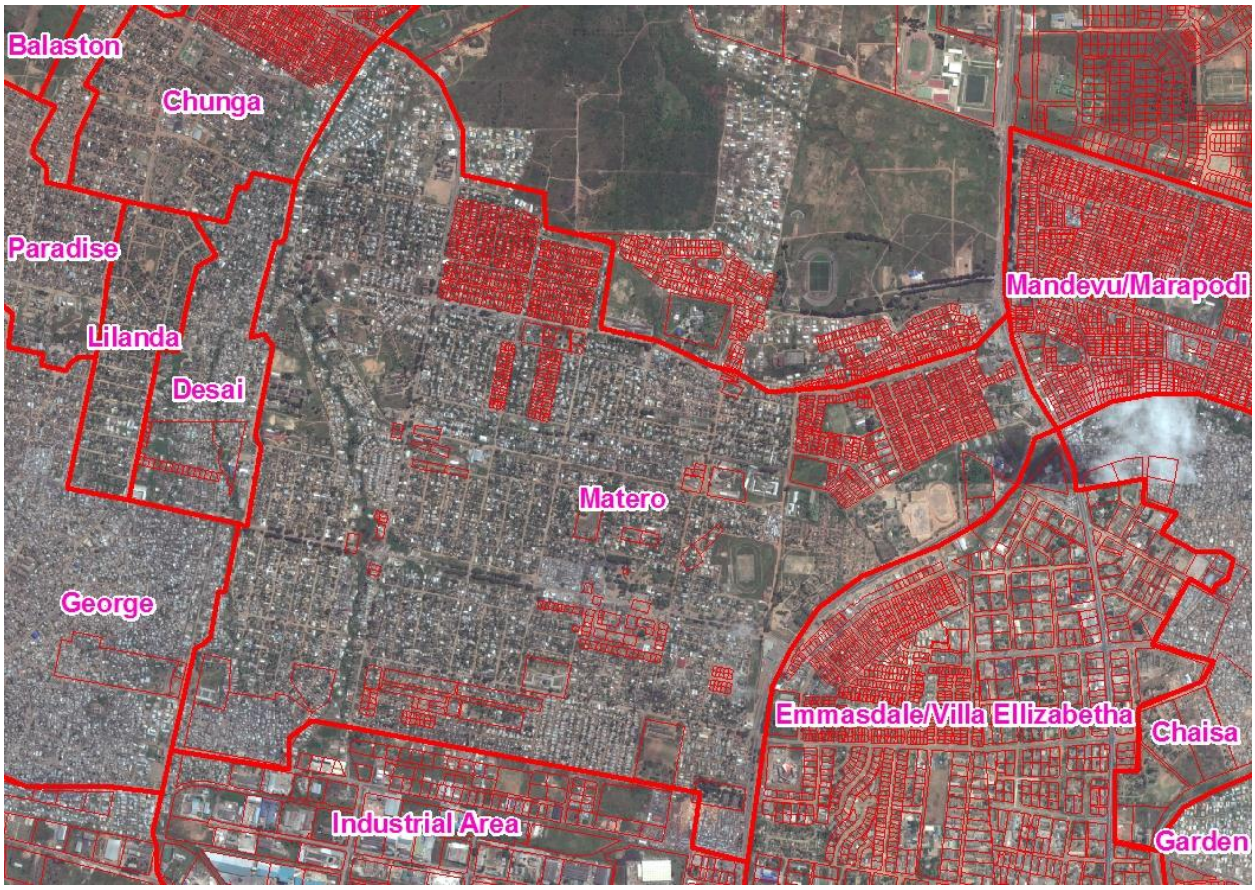

Figure 1 Map of Matero

1.3. Statement of the problem

The Maiteneke sewer rehabilitation project by Lusaka Water & Sewerage Company was initiated to re-design the sewer network in Maiteneke area of Matero Township. The objectives of the project were set and activities and outcomes documented. Lusaka Water and Sewerage Company have various Communication Strategies as indicated in its Maiteneke Communication Plan. Among them are; brochures, public address system, drama, website update, media briefing, print adverts, community meetings, radio and television adverts, radio interviews on community radio stations, social media, billboards and letter writing (LWSC 2013, p.2). Despite the seemingly comprehensive list of channels in the communication plan, efforts by LWSC have proven futile, as it appears that the participation levels remain very low. Could the challenge still be in the strategy or mere apathy by community members? Yoon (2004, p.4) observes as follows;

> There is an increasing awareness that it may be just as important for communicators to be trained in the indigenous communication methods of the people so that they can participate effectively in the communication systems of the community. A view has emerged that truly participatory communication is the "natural" communication of the people. It is everyday communication which nourishes the identity of the people as a community. Such communication skills are learnt over a lifetime and probably difficult to acquire if one is an "outsider."

It is believed that in order to share information, knowledge, trust, commitment and a right attitude in development projects, participation is very important in any decision-making process for development.

However, the Maiteneke sewer rehabilitation project seems to present a different case. Considering the literacy, geographical and socio economic factors of the Maiteneke area, this therefore undertakes to examine the uniqueness of this project. To this effect, the study evaluated the communication strategy used by LWSC in Maiteneke and established whether what is stipulated in the strategy was the actual case on the ground. In so doing, it drew from the perceptions of the community members on the effectiveness of the purported communication strategies.

1.4. Significance of the Study

The study evaluated the effectiveness of the communication strategies employed by Lusaka Water and Sewerage in Maiteneke area. Particularly, the research examined how effective the model of Communication was, the levels of satisfaction of the people and asses why the

project took so long. Can it be that the communication strategies have not been very effective or it was just mere apathy on the part of the community?

Hence, this report could act as Monitoring and Evaluation. It has the potential of contributing to the body of knowledge on the subject as well as informing policy makers, project planners and implementers on how effective some communication strategies could be; consequently it will contribute to the success of the project

1.5. Research Objectives

1.5.1. General Objective

- To evaluate the effectiveness of the communication strategies used by Lusaka Water and Sewerage Company in resolving sewer problems in Maiteneke.

1.5.2. Specific Objectives

- To establish the communication strategies used by LWSC in resolving sewer network problems in Lusaka's Maiteneke area.
- To establish community's perceptions over the communication strategies used by LWSC in the project.
- To determine challenges faced by LWSC with regards to the communication strategies used in Maiteneke.
- To establish ways in which LWSC can improve its communication strategies in Maiteneke

1.5.3. General Research Question

- How effective were the Communication Strategies used by LWSC in resolving sewer problems in Maiteneke?

1.5.4. Specific Research Questions

- What Communication strategies did Lusaka Water and Sewerage Company use in resolving sewer problems in Maiteneke area?
- What were the perceptions of the people with regards to the communication strategies used?
- What challenges is LWSC facing with regards to communication strategies used in Maiteneke?
- In which ways can LWSC improve on its communication strategies?

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The literature reviewed shows that a lot of writing has been done on the communication strategies on the access to clean Water and Sanitation improvement World over, Africa and Zambia in particular.

Globally, 2.4 billion people do not have access to adequate sanitation and most of them tend to be victims of poverty (Myles, 2003, p.4). Further, in the developing world 50 per cent of the population is without adequate sanitation (World Bank, 2003, p.2) and suffer with diarrhoea, trachoma and schistosomiasis (WHO and UNICIEF, 2000, p.6) leading to considerable loss and disabilities of human resources. Considering this, the international community set provision of sanitation as part of the Millennium Development Goals, to reduce to half by the year 2015, those without adequate sanitation facilities. Considering all parameters, this means that an additional 350,000 people have to be covered every day with improved sanitation services by 2015 (IRC, 2003, p.19).

2.2. Water and Sanitation in India

In India, the severity of sanitation problem has a long history. In 1935 British troops suffered due to sanitation related diseases (WHO, 2003,p.9). Ramasubban (1982, p.27), Environmental Hygiene Committee (1948) and Bhore (1944) recommended better sanitation services and this became a blueprint to make budgetary allocation during the First Five-year Plan (1951, p.56). But the sector again came into limelight 20 years later, during the emergency 1975, and latrine construction was given priority. The Fifty Five Year Plan endorsed priority to sanitation by stating that, "the elimination of abject poverty will not be attained as a corollary to certain acceleration in the rate of growth of the economy alone, but improvements in drinking water and environmental sanitation have direct correlation with levels of living"**.** Thus, providing public health facilities became part of poverty alleviation programmes. This is, in fact an eye opener for the policies regarding sanitation services.

With the commencement of the International Water and Sanitation Decade, the Government of India drew up new policies with the support of the United Nations (UN) and other external agencies. As part of this, the Central Rural Sanitation Programme (CRSP) was launched in 1986. Following this, various diversified programmes were introduced by the Ministry of Rural Development in 1990s, to suit the local needs. These new policies and new strategies have shown a marginal impact in coverage (Annexure 1). Finding sluggish progress in the implementation of CRSP, reforms were introduced and the programme was renamed as Total Sanitation Campaign (TSC, 1999, p.1), which includes latrines plus services such as, provision of latrines, disposal of liquid and solid waste and domestic as well as environmental hygiene.

This approach is 'demand driven', the beneficiaries have to share a marginal capital cost and be part of its implementation (GOI, 2002, p.88). This new concept has been developed based on baseline survey findings 'On Knowledge, Attitudes and Practices in Rural Water Supply and Sanitation' by Indian Institute of Mass Communications (1996, p.97). According to survey results, 55 per cent of those with private latrines were self-motivated and 51 per cent of the respondents were willing to spend up to Rs 1000/- to acquire sanitary toilets (GOI, 2002, p.19). The TSC, in addition to households, extends support for community Sanitary Complexes, which will have multiple facilities such as toilets, washing platform, bathing rooms, among others. The unit cost is up to Rs 2 lakh and shared by the GOI, State Government and the community in the ratio of 60:20:20. However, the percentage of households covered with latrine is just 22 per cent (Census, 2001, p.3). In other words, 78 and 26 per cent of the households in rural and urban areas respectively do not have access to latrines (Annexure 1). The variation across states show that states like Kerala, Assam, Punjab, Andhra Pradesh, Delhi, Gujarat, Uttar Pradesh and Karnataka have better facilities. The reason for the better performance of these states was attributed to better intervention of the state.

According to the Sanitation and Hygiene advocacy and communication strategy framework 2012-2017, the Indian Government with support from UNICEF revealed that more people practice open defecation in India than anywhere else in the world – more than 600 million individuals. Although access to improved sanitation is steadily increasing in India since the year 2000, the pace of change is too slow. If the current trend continues, India will miss the Millennium Development Goal (MDG) target for sanitation, and without India the world will

not be able to achieve its targets. Clearly accelerating access to and use of toilets and hygiene practices have become a national priority for India. To accelerate the process the Ministry of Drinking Water and Sanitation (MDWS) along with UNICEF and other partners have developed the National Sanitation and Hygiene Advocacy and Communication Strategy Framework for 2012-2017. The overall goal is to make sure that people have access to, and use a toilet and practice good hygiene, including hand-washing with soap after the toilet and before eating food. The strategy focuses on increasing knowledge and perceived importance of sanitation and hygiene practices, with the long term objective of changing the way society thinks so that open defecation is no longer acceptable in India.

The Advocacy and Communication Strategy focuses on four critical sanitation and hygiene behaviours:

1. Building and use of toilets,
2. The safe disposal of child waste,
3. Hand washing with soap after defecation, before eating food and after handling child waste,
4. Safe storage and handling of drinking water.

The Communication Strategy is divided into three phases, each with specific communication objectives. It clearly defines,

- The audience receiving the information (the who);
- The content of the information (the what)
- The methods to be used to convey the information (the how); and
- The approaches to promote action for change (the action).

This is achieved through advocacy, interpersonal communication and community mobilization with overall multi-media support including mass media, digital media and social media.

A detailed implementation framework lists out the key audiences, the activities to be used with each of them and the communication tools required. A preliminary monitoring and evaluation framework with regular assessments allows for local modification and refinement

of the strategy. Indicators for each of the phases are organized at three levels: outcome, output and process.

A District Communication Plan Template supports the overall framework. It outlines the steps required for the development of a Communication Action Plan and for roll out at the district, block and village level.

However, literature does not categorically indicate whether these goals were met or not; and if they were met the extent is not clear. It remains important to realise that central in undertaking this activity was the communication strategy realised as a factor in development projects. In summary, the communication strategies used were: advocacy, community mobilisation and mass media.

2.3. Communication Strategy on Water, Sanitation and Hygiene in Liberia

In Liberia, UNICEF had a Water, Sanitation and Hygiene for Diarrhoea and Cholera prevention programme in 2012, whose aim was to contribute towards promoting behavioural change among families and communities in Liberia around Water, Sanitation and Hygiene with a focus on the prevention of Acute Watery Diarrhoea and Cholera. It intends to provide a framework for designing and implementing communication interventions on the issue across the country whose overall goal was: 'to increase the adoption of safe water, sanitary practices and hygiene among families and communities in Liberia contributing to the reduction of Acute Watery Diarrhoea (AWD) and Cholera' (UNICEF 2012, p.3).

The Long Term Communication Objectives for the framework were to:

- Increase in the percentage of families and communities that practice safer water, sanitation and hygiene behaviours by the end of 2015.
- Increase in the collaboration between various stake holding government ministries or departments, development partners, media and civil society organizations at all levels to advocate for as well as address issues related to water, sanitation and hygiene by the end of 2015.
- Increase in the number of communities actively participating in the management of water, sanitation and hygiene in their areas by the end of 2015.

- Increase in the percentage of families and communities who practice recommended water, sanitation, hygiene and treatment seeking practices during AWD and Cholera outbreaks by the end of 2015.

While communication would be contributing towards the achievement of the above mentioned objectives, they would also depend to a great extent, on the availability of necessary water, sanitation and hygiene services as well as levels of engagement of different stakeholders. Hence it would also be important to track some short term objectives, the attainment of which could be directly attributed to communication efforts.

While the Short Term Objectives were to:

- Increase in the percentage of families who are knowledgeable about the importance of safe water, sanitation and hygienic practices and the risks of not following them by the end of 2013.
- Increase in the percentage of families who strongly believe that it is important to follow safe water, sanitation and hygiene practices by the end of 2014.
- Increase in the participation of various stake holding government ministries or departments, development partners, media and civil society organizations at all levels on issues related to water, sanitation and hygiene (including AWD and Cholera)by the end of 2013.
- Increase in the number of families and communities with the required skills and motivation to manage outbreaks of AWD and Cholera by the end of 2014.

All short term and long term objectives would need to be quantified and targets set, once a KAP baseline is carried out (UNICEF, 2012, p.89).

The study and intervention in Liberia shows that communication strategies used by UNICEF for intervention in water and sanitation project were**:** community participation, state action, advocacy and mass media.

2.4. Improvement of Sanitation facilities in Kenya

In order to improve Sanitation conditions for Slum dwellers in Makuru, Nairobi, Kenya, a project to increase access to Sanitation facilities for the Makuru dwellers was implemented under Community Development Trust Fund (CDTF) with funding from the European Union between July, 2005 and December, 2006. (CDTF, 2006, p.1). The general objective or aim of the project was: Improving the health status of slum residents through the provision of Sanitation facilities and creating awareness and behaviour change in sanitation. Its specific objectives were:

- To promote environmental sanitation by providing water supply and appropriate human waste disposal facilities in Makuru.
- To build the community capacity to undertake and manage water and sanitation facilities on a sustainable basis.
- To increase awareness and stimulate demand for sanitation services through training and social marketing events.

With the above objectives, they managed to achieve the following:

- Eight ablution units, each comprising 10 toilets, 10 bathrooms, a communal water selling point (kiosk) and a laundry pad, constructed in eight different villages. Therefore, in total, 80 toilets, 80 bathrooms, 8 water kiosks and 8 laundry pads were provided.
- 5Kms of waste water drainage constructed.
- Local ownership of the facilities developed through participatory planning and implementation of the project with local groups and training of their respective committees.
- 400 outreach trainers received training on Participatory Hygiene and Sanitation Transformation (PHAST) to equip them to carry out door to door awareness and behaviour change campaigns with regard to hygiene and sanitation.
- Over 4000 households reached through 8 social marketing events and door to door training by outreach trainers, to create a shift in knowledge, attitudes and behaviour with regard to improved hygiene and sanitation practices.

The beneficiaries of the project were happy with the outcome of the project for they participated in the project from its inception to implementation as observed by one of the beneficiaries:

> "With these sanitation blocks, people have a chance to keep themselves and their surroundings clean. The tendency to dump waste in the open trenches and drainages is slowly ending and our children are safer when they play about outside" (Mama Veronica, who uses the facility at Mukuru's Kwa Reuben village).

The intervention on improvement of sanitation in Kenya shows that the main communication strategies used include: Mass media, community mobilisation, advocacy and state action.

2.5. Sanitation Campaign in South Africa

In South Africa in 2010, the Social Justice Coalition (SJC) launched the clean and safe Sanitation Campaign to compel the Cape Town City Council to proper maintain existing toilets and also provide additional clean and safe Sanitation facilities in informal settlements. SJC's campaign had several achievements including the introduction of the janitorial service for regular maintenance of flush toilets and standpipes. To achieve these gains, SJC relied on multifaceted approach including extensive research, a legal strategy, the communication strategy of media publicity which embraced various communication strategies in print, broadcast and television and distributing small media in local language targeting both poor and wealth communities, forming broad coalition that included civil society organizations, health professionals and religious leaders, protest and some budget work (Partnership Initiative Case Study 2010, p.4).

2.6. An Evaluation of the Sewered Aqua Privies System in Maiteneke

With regard to Matero's Maiteneke area, the only literature available where sanitation is concerned is an evaluation of the Sewered aqua privies system conducted by Bob Reed and Marcus Vines who visited Zambia between 11th and 23rd May, 1990 in order to evaluate sewered aqua privies in Lusaka's Maiteneke area and Kafubu in Ndola.

The aim of the research contract was to develop guidelines for the successful design, construction and operation of reduced cost Sewerage system. Reduced cost sewerage system includes sewered aqua privy system such as the one in Matero's Maiteneke area. It was hoped that such an evaluation would determine how successful sewered aqua privies have been in Maiteneke and why? (Bob and Reed 1990, p.2).

In order to do this, the evaluation had the following objectives:

- To gather background information relating to the social, economic, religious, cultural and administration characteristics of Matero, Lusaka.
- To obtain details (including cost) of the design and implementation of sewered aqua privies in Matero.
- To assess how well the sewered aqua privies are functioning and how widely they are utilized; and
- To find out how sewered aqua privies are being operated and maintained by whom and at what cost?

Though the study was conducted to provide lessons for intervention in other areas, it lacked community participation and feedback from the intended beneficiaries. Whether the aim was achieved or not is equally not known.

In this case, there was less indicated in terms of communication strategies as implementers of the project did not consult the significant number of people from the community about the project.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Introduction

This chapter deals with the description of the methods which were applied in carrying the research study, and the data collection process used. Specifically, it outlines the key issues pertaining to the research strategy, description of the study target population, study design and approach, data collection methods and analysis used. To enhance the quality of the output, the study followed the triangulation approach, whereby the quantitative and qualitative approaches were used.

3.2. Research Design

The study used convergent parallel mixed method design. In this design, the researcher typically collects both quantitative and qualitative data at roughly the same time and then integrates the information in the interpretation of the overall results. Contradictions or incongruent findings are explained or further probed in this design (Creswell, 2014, p.15).

3.3. Research Methods

The study used mixed research methods. Most particularly, convergent parallel mixed methods were used. Following Creswell's (2014, p.14) description of convergent parallel mixed methods as a method which merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem, the current study collected quantitative and qualitative data at the same time and integrated into the interpretation of overall results.

The use of mixed methods in this study came with advantages as it was able to counter the weakness of quantitative techniques by qualitative techniques, and vice versa. By mixing both quantitative and qualitative research and data, the researcher gained in breadth and depth of understanding and corroboration, while offsetting the weaknesses inherent to using each approach by itself. Further mixed methods provided a good opportunity for triangulation such as the use of several data sources to examine the phenomenon of communication strategies used by Lusaka Water and Sewerage Company for Community Participation in the Maiteneke Sewer Rehabilitation Project in Matero Township. Triangulation allowed the researcher to identify aspects of a phenomenon more accurately by approaching it from different vantage points using different methods and techniques.

3.4. Study site

The Study was undertaken in Matero's Maiteneke area of Lusaka. Matero is one of Zambia's oldest townships with a current population estimate of 110,000. The Water and Sewer networks were laid in the early 1960s to cater for a population of less than 30,000. The area is a complex society characterized with different people of different ethnic backgrounds, and in some instances colour and race.

3.5. Study Population

In terms of population the study area has 600 properties translating to a population of 4,800 inhabitants. These formed the sampling frame for the purpose of the current study.

3.6. Sample Size

A sample is a small representative proportion of the population that is selected for observation and analysis (Best and Kahn, 2008, p.11). From such a proportion, the researcher studies characteristics of the sample and makes inferences about the characteristics of the population from which the sample was drawn. Therefore, the concern when undertaking sampling is the question of how many units of what particular description and by what method they should be chosen. Fooling from this, sample is a technique for selection of participant to serve the purpose of the study.

Sidhu (2006, p.22) proposes two types of sampling techniques such as probability sampling and the judgement or non probability sampling. Probability sampling encompasses a number of sampling techniques including simple random sampling, while non-probability sampling encompasses sampling techniques such as purposive and snowball sampling.

In this study, the sample size was 100 participants. The assumption for selecting this sample size was that the sample size will lead to basic understanding of the phenomenon of investigation as they are residents of Maiteneke. In addition, there was also a sample of 55 participants who are opinion leaders in the community they were included as key informants which brought the total number of participants in the study to 155 people.

3.7. Sampling technique

In order to select the required sample of 155 participants, the study used both probability and non-probability sampling techniques. The 155 participants were selected by using of simple random sampling. Simple random sampling means that the researcher selects every member of the sample in such a way that all members of the population have the same probability of being selected (Sidhu, 2006, p.22). Based on the available sampling frame, each household in Maiteneke had an equal and non-zero chance of being included in the sample. At each selected household, the researcher purposively sought the participation of one representative, with preference to the household head or any reasonable adult in case of the absence of the household head.

Purposive sampling was a technique used to categorically employ recruit household heads and also Key informants into participating in the current study. Literature provides evidence that in purposive sampling the investigator selects a particular group from the entire population to constitute the sample because this group is considered to have characteristics required for the specific purpose of investigation. In this case, selection of key informants by purposive sampling was based on the understanding that the institutions they represented had a particular interest in the water related affairs but also in Maiteneke area. As a result, such participants had rich knowledge and experiences which were vital for this study. The researcher also considered the fact that key informants should be willing to take part in the study without any form of coercion like any other participant selected.

3.8. Data Collection

The study collected both primary and secondary data.

3.8.1. Primary Data:

Primary data refers to the type of data collected for the first time through direct contact with participants. Within the category of primary data was quantitative and qualitative data.

3.8.1.1. Qualitative Data

Qualitative data was collected by use of interviews and focus group discussions. These techniques enabled the researcher to explore the experiences of people with communication strategies used by the Lusaka Water and Sewerage Company in their efforts to improve the state of water and sanitation in Maiteneke.

i. In-depth Interviews

The nature of interviews was to help the researcher to get into the inside information of Lusaka Water and Sewerage Company, The National Water Supply and Sanitation Council (NWASCO) and from some opinion leaders in the community.

Through one-to-one interviews with key informants from LWSC, NWASCO and the community; the researcher managed to capture the behaviour, gestures, reactions, emphasis, assertions and emotions of the respondents with regards to the subject of focus. These non-verbal expressions can give more accurate information than in a questionnaire. Non-verbal cues may also give messages which help in understanding the verbal response, possibly changing or reversing its meaning (Robson, 2002, p. 273).

ii. Focus Group Discussions

In depth interviews were complemented with 5 Focus Group Discussions where a group of about between 5 to 10 people were purposively brought together based on their knowledge on the project. Each participant was accorded a chance to air their views based on their experience with the communication strategies used by Lusaka Water and Sewerage Company in the Maiteneke Sewer Network Project.

Therefore, the techniques provided a platform where individuals interviewed and those engaged in focused group discussion shared various aspects and dimensions of the subject in question. The interviews and focus group discussions were held at the respondent's convenient place and time.

3.8.1.2. Quantitative Data

Quantitative data involved numerical figures and was therefore collected by use of self-administered questionnaires.

i. Self-Administered Questionnaires

Questionnaires were designed to reflect the objectives of the study and therefore proved to be vital tools for data collection. Questionnaires allowed the collection of data which can be used to measure attitudes, opinions, and beliefs. They also allowed the researcher to use different questioning techniques such as open ended questions in order to allow the

respondent to give deeper details. Closed questions which gave the respondent options to pick from were also included in the questionnaire.

3.8.2. Secondary Data:

Secondary data refers to data that was already collected and is found in various sources such as books, media, among others. In this study, documents including reports were reviewed in order to anchor the current research in some perspectives and benefit from the already existing literature on the subject.

3.9. Data Analysis

Given that the current study had a mixed method orientation, which led to the generation of both qualitative and quantitative data, the study employed both qualitative and quantitative techniques of data analysis out of which findings merged to form the basis for the report.

Quantitative data was analyzed by using Statistical Package for Social Sciences. This is software that allows the research to make sense of the data as it generates graphs, tables and relevant figures. The procedure of analysis of quantitative data begun with: checking questionnaires for consistency, uniformity and accuracy. This was followed by entering the data into the statistical package in readiness for processing.

For qualitative data, the study used content analysis. According to Morgan and Kruger (2006, p.16), content analysis is any technique for making inferences by systematically and objectively identifying special characteristics of messages. Content analysis is not one single method, but that current applications show three distinct approaches such as conventional, directed, and summative (Shanon and Hsieh 2005, p.29). Therefore, conventional content analysis was used in this study. The commonality in these approaches is that they are used to interpret meaning from the context of data thereby embracing a naturalistic paradigm. However, their difference is imminent in coding schemes, origins of codes, and threats to trustworthiness as posited by Shanon and Hsieh (2005, p.30):

> 'In conventional content analysis, coding categories are derived directly from the text data. With a directed approach, analysis starts with a theory or relevant research findings as guidance for initial codes. A summative content analysis involves counting and making comparisons, usually of keywords or content, followed by the interpretation of the underlying context. The authors delineate analytical procedures specific to each approach and techniques addressing trustworthiness with hypothetical examples drawn from the area of end-of-life care.'

By use of Conventional Content Analysis, data from field notes and documents were the main focus in order to produce meaningful messages. The following activities were therefore undertaken in the process of qualitative data analysis:

i. Transcribing verbatim and organizing materials (field notes, other documents).
ii. Developing codes and affixing them to set of notes or transcript pages.
iii. Transforming codes into categorical labels or themes.
iv. Examining materials to identify meaningful patterns and processes.
v. Identified and examined patterns were reshaped in ways that led to coherent writing of thesis.

The next stage was characterized by merging the findings from quantitative data to those of qualitative data in a manner that was systematic and meaningful. Therefore, the two way of analyzing the data was beneficial to this study.

3.10. Ethical Considerations

Research is a scientific human endeavour that is organized according to a range of protocols, methods, guidelines and legislation. As such, the current study took effort in adhering to ethical standards and considerations for conducting social research. As posited by Punch (2005, p.7), the current study involved collecting data from people, about people. Particularly, their experience with communication strategies of Lusaka Water and Sewerage Company.

Therefore, the researcher endeavoured to seek professional approval and institutional clearance at various levels such as the University where the researcher was a student, local authorities and leaders of affected community. The objective of undertaking the process of seeking institutional approval and clearance was to maintain professional integrity in the process of carrying out social research.

At the beginning of the study, the researcher informed participants of the study including the importance of their participation. In the same way, the researcher sought the informed consent without coercion of any sort in order to adhere to research integrity as well as respect

for their dignity, as well as norms and charters of indigenous society (Creswell, 2013, p.9). In the same way, other rights of participants such as privacy and confidentiality were observed.

When collecting data, the researcher adhered to the recommendation given by Creswell (2013, p.10) that social researchers are required by ethics to respect the site, and avoid disrupting proceedings as well as treating all participants in the same way while at the same time making efforts to avoid deceiving participants.

In the process of data analysis, the researcher avoided siding with participants reporting findings as they come rather than concentrating on positive or negative findings. This is significant for the integrity and reliability of the study. At this stage came the element of maintaining the anonymity and privacy of participants. The researcher kept as anonymous and confidential participants' identities in order to respect their privacy by not writing their names.

The subjects were free to withdraw from the study at any point. In the event that the subjects sought further clarification about the study, they were encouraged to consult with a confidant or independent advocate. In relation to ensuring that respondents are shown fair treatment and justice, each individual was treated equally without judgment or prejudice. The principle of veracity or truth telling is inherently important and the researcher showed this by telling the subjects the aim of the research and the proposed outcomes.

3.11. Study Limitations

It was difficult for the researcher to access archival data as most of it was not filed in a central location for reference or public access. The researcher however was able to access some documents from individuals who were instrumental in the process of the project. Most of the houses in Maiteneke are on rent; hence this poised a challenge to the researcher to find respondents who were knowledgeable about the project as some of the prominent individuals who were saliently involved in the project have since permanently moved either to other areas within Zambia or have gone abroad while some have died.

CHAPTER FOUR

CONCEPTUAL AND THEORETICAL FRAMEWORKS

4.1. Introduction

In this section, concepts related to this study topic are defined and explored to provide a basis for presentation. This vintage point includes a clear understanding of the concepts of the study including: communication, communication strategy, sanitation, hygiene, participation and development as they relate to the central question of investigation.

4.2. Conceptual Definitions

4.2.1. Communication

According to Slater (1983, p.1), communication refers to the process or act of transmitting a message from a sender to a receiver, through a channel and with the interference of noise. During this process, information is conveyed as words, tone of voice, and body language. Studies have shown that words account for 7 percent of the information communicated. Vocal tone accounts for 55 percent and body language accounts for 38 percent. To be effective communicators, team members must be aware of these forms, how to use them effectively, and barriers to the communications process.

In the current report, communication is operationally understood as the exchange of ideas or information between two or more people on matters of concern. Therefore, the primary focus is on the manner in which Lusaka water and Sewerage Company engaged in exchange of information about the project on sanitation in Maiteneke area of Matero.

4.2.2. Communication Strategies

Communication strategies are plans for communicating information related to a specific issue, event, situation, or audience. They serve as the blueprints for communicating with the public, stakeholders, or even colleagues (Serveas, p.214).

In the current study, communication strategies were understood as specific activities and mechanisms used in sharing information about the project of sanitation in Matero's Maiteneke area. Of particular concern were the following activities or tools employed in the process of communication: concerts, songs, speeches, road shows, billboards, posters, brochures, flyers, T.V and radio discussion programs and adverts, films, demonstrations, protests and letters.

4.2.3. Knowledge

Denotes certain socially-structured collective representations, including beliefs and values (regarding, for instance prospects for the future, the well being of the community), which constitutes the worldviews of different strata (Tichenor et al., 1970, p. 162).

In this study, knowledge was considered as people's awareness of the project on sanitation as being carried out by Lusaka Water and Sewerage Company.

4.2.4. Information

This is the qualitatively undifferentiated data of the "information system," the product of its "feedback" and "distribution- control" (Olien, Donohue, Tichenor, 1983, p.457).

In this study, information was considered as the shared product of knowledge about sanitation and the project carried out by Lusaka Water and Sewerage Company.

4.2.5. Channel

This is the means of sending information or the message from the source (sender) to the destination (receiver) (Muzyamba, 2014).

In this study, channel was the means used by Lusaka Water and Sewerage Company to send information to the residents of Maiteneke.

4.2.6. Campaign

A campaign is a marketing programme that represents one or more contracts or orders from a customer (Kotler, 1971, p.7). The Matero's Maiteneke Sewer Network project can be termed as a "social change campaign". Kotler and Ned Roberto introduced the subject by writing, "A social change campaign is an organized effort conducted by one group (the change agent) which attempts to persuade others (the target adopters) to accept, modify, or abandon certain ideas, attitudes, practices or behaviour" (Kotler and Roberto, 1983, p.18).

4.2.7. Development

Development is understood as allowing people to improve their own lives, both individual and corporate, to be in control of their means of survival and ultimately have a grip on their destiny. The particular tone emphasised in development literature and practice is that development must be sustainable. Many scholars have articulated various definitions of development. Of particular interest to the current case is the definition of development by Todaro and Smith (2010, p.64) who defines development as:

"as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of absolute poverty.''

Notable in this definition is the fact that development is not merely defined in economic terms. It is integral in that it embraces the whole of human life. Development without improvement in the welfare of the people would not meet the above definition because the human person is at the heart of the development process. One integral aspect in development is health to which sanitation is an essential component. It is, therefore, justified that LWSC was engaged in this sanitation project in Maiteneke as this would contribute to better health among citizens.

4.2.8. Hygiene

WHO (2014, p.2) conceptualises hygiene as conditions and practices that help to maintain health and prevent the spread of diseases. It further points out that medical hygiene, therefore includes a specific set of practices associated with this preservation of health, for example,

environmental cleaning, sterilization of equipment, hand hygiene, water and sanitation and safe disposal of medical waste. In the case of this research, hygiene is understood broadly as any condition where the environment is life supporting in as far as indices such as water and sanitation are themselves up to the acceptable standards for human life.

4.2.9. Sanitation

According to WHO (2014, p.1) sanitation refers to the provision of facilities and services for the safe disposal of human urine and faecal matter. Inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant beneficial impact on health both in households and across communities.

In the case of this research improvement of hygienic conditions including water and sewerage is an essential component to improving sanitation.

4.2.10. Community

Community is defined as a group of people who have a sense of common purpose(s) for which they assume mutual responsibility, who acknowledge their interconnectedness, who respect the individual differences among members, and who commit themselves to the well-being of each other and the integrity and well-being of the group (Bwalya, 2008, p. 140-143). Since this is a group of people with a common purpose and objectives, they share a number of things in common. In this regard a community is defined as a group of people where there are shared values and organizational vision; personal commitment and service to a common good; social norms that provide guideline for cooperative action; collective history and traditions; continuing interaction, dialogue and shared experience; relationships grounded in mutual respect and trust; integrated, value-based participation and service; collaborative leadership and group work; sense of membership based on voluntary choice; respect for individual abilities and differences; collective celebration and ritual; sense of a shared physical, social or psychological space (Bwalya and Ndawana, 2013, p.9).

4.1.11. Participation

It is difficult to have a universal definition of participation. However, a useful definition of public or community participation relevant to this study is that adopted by Stoker (1997, p.44) for ‘political participation’ whereby members of the public ‘taking part in any of the

processes of formulation, passage and implementation of public policies'. This is a wide-ranging definition, which extends the emphasis of public participation beyond the development of policy, to decision-making and implementation. However, Scholars like Bwalya and Ndawana (2013, p.11) distinguish about 7 types of participation:

•**Passive Participation:** it refers to simply being told what to do or what is going to happen.
•**Participation by giving information:** it refers to a situation where one or several members of a community merely provide information relating to a development project and nothing more.
•**Participation by Consultation:** it refers to a situation whereby people are asked for input and the external people listen to their views.
•**Participation to obtain material incentives:** it refers to a situation whereby people engage in an activity so that they obtain material rewards in return. For example, money, food.
•**Interactive participation:** it refers to a joint analysis of needs, opportunities, perceived problems and solutions by all stakeholders in an activity. This may lead to action plans and the formation of new institutions or the strengthening of the old ones to meet new challenges.
•**Functional participation:** the prime intent is in order to achieve certain objectives after major decisions of a project has been made already.
•**Self-mobilisation:** it refers to the kind of participation where initiatives are taken independent of any external agencies or institutions to change systems. In this case, a community develops contacts with external agencies for financial resources and in some cases technical advice necessary for given projects but retains control over the use to which the resources are put.

According to Bwalya and Ndawana (2013, p.11), the advantages of Participation are as follows:

- It allows external agents to obtain better knowledge of the local reality through direct contact with the population.
- Participation allows better planning since it can be done on the basis of the priorities identified by or with the communities.
- It avoids planning for the population in a paternalistic way and guarantees that the plans respond to the needs of the community.

- Compared with the top-down interventions, participatory approaches will improve the efficiency and sustainability of the intervention.
- Participation creates a sense of ownership. The ownership relates to commitment to the decision made and where relevant to the maintenance of social infrastructure such as schools, clinics, boreholes, and many more. When people choose and determine their priorities, when they feel the project is theirs, they will take responsibility and be more committed when it comes to implementation.
- Participation allows people to be helped to solve their own problems. Thus, they gain skills through dialogue, reflection about the problems and possible solutions and negotiations.
- Participation brings about a generous spirit in the community whereby people avail their talents and ideas to other members of the community.
- Participation gives chance to participants to achieve friendship, sociability and have the benefit of enjoying a sense of community.
- Participation enhances the capacity of individuals and hence brings about self-fulfilment.

3.3. Theoretical Framework

This study used two theories namely of Diffusion of Innovation theory and participation theory. These were relevant in studying the case of communication strategies and water and sanitation.

3.3.1. Diffusion of Innovation Theory

The American scholar Everett Rogers, a professor of rural sociology is said to be the person who introduced this diffusion theory in the context of development in his book "Diffusion of Innovations"; published in 1962, and is now in its fifth edition (2003). Modernization is here conceived as a process of diffusion whereby individuals move from a traditional way of life to a different, more technically developed and more rapidly changing the way of life. Building primarily on sociological research in agrarian societies, Rogers stressed the adoption and diffusion processes of cultural innovation. This approach is, therefore, concerned with the process of diffusion and adoption of innovations in a more systematic and planned way. Mass media is important in spreading awareness of new possibilities and practices, but at the stage where decisions are being made about whether to adopt or not to adopt; personal communication is far more likely to be influential. Therefore, the general conclusion of this

line of thought is that mass communication is less likely than personal influence to have a direct effect on social behaviour.

The communication media are, in the context of development, generally used to support development initiatives by the dissemination of messages that encourage the public to support development-oriented projects. Although development strategies in developing countries diverge widely, the usual pattern for broadcasting and the press have been predominantly the same: informing and educating the population about projects, illustrating the advantages of these projects, and recommending that they be supported. A typical example of such a strategy is situated in the area of family planning, where communication means like posters, pamphlets, radio, and television attempt to persuade the public to accept birth control methods. Similar strategies are used in campaigns regarding health and nutrition, agricultural projects, education, and so on.

This model sees the communication process mainly as a message going from a sender to a receiver. This hierarchical view on communication can be summarized in Laswell's (2005, p.13) classic formula where communication is characterised by sender of message, message, channel, and receiver of the message.

Newer perspectives on development communication claim that this is still a limited view of development communication. They argue that this diffusion model is a vertical or one-way perspective on communication, and that active involvement in the process of the communication itself will accelerate development. Research has shown that, while groups of the public can obtain information from impersonal sources like radio and television, this information has relatively little effect on behavioural changes (Servaes 2008, p. 20).

A similar research has led to the conclusion that more is learned from interpersonal contacts and from mass communication techniques that are based on them. On the lowest level, before people can discuss and resolve problems, they must be informed of the facts, information that the media provide nationally as well as regionally and locally. At the same time, the public, if the media are sufficiently accessible, can make its information needs known.

This theory applies to the study in a way that ideas flow into the community according to the rate of adoption and how various people view the idea. If the idea is beneficial to the

community, the rate of adoption will be high. If they understand the idea, people will agree to let go their traditions and adopt other beneficial trends.

One major weakness of this theory is that it creates a gap in knowledge between the early adapters to innovation or technology and the late adapters or those that have access to innovation or technology and those that do not have access.

3.3.2. Participatory Theory

The participatory model, on the other hand, incorporates the concepts in the framework of multiplicity. It stresses the importance of cultural identity of local communities and of *democratization and participation at all levels*—international, national, local and individual. It points to a strategy, not merely inclusive of, but largely emanating from, the traditional 'receivers'. A useful definition of public or community participation is that adopted by Stoker (1997, p.63) for 'political participation' (Parry et al., 1992, p.90) where members of the public 'take part in any of the processes of formulation, passage and implementation of public policies'. This is a wide-ranging definition, which extends the emphasis of public participation beyond the development of policy, to decision-making and implementation.

Paulo Freire (1983, p.76) refers to this as the right of all people to individually and collectively speak their word: 'This is not the privilege of some few people, but the right of every one. Consequently, no one can say a true word alone—nor can he say it for another, in a prescriptive act which robs others of their words'. In order to share information, knowledge, trust, commitment and a right attitude in development projects, participation is very important in any decision-making process for development.

Therefore, the International Commission for the Study of Communication Problems argues that 'this calls for a new attitude for overcoming stereotyped thinking and to promote more understanding of diversity and plurality, with full respect for the dignity and equality of peoples living in different conditions and acting in different ways' (MacBride, 1980, p 254). This model stresses reciprocal collaboration throughout all levels of participation.

Also, these newer approaches argue, the point of departure must be the community. It is at the community level that the problems of living conditions are discussed, and interactions

with other communities are elicited. The most developed form of participation is self-management.

This principle implies the right to participation in the planning and production of media content. However, not everyone wants to or must be involved in its practical implementation. More important is that participation is made possible in the decision-making regarding the subjects treated in the messages and regarding the selection procedures. One of the fundamental hindrances to the decision to adopt the participation strategy is that it threatens existing hierarchies. Nevertheless, participation does not imply that there is no longer a role for development specialists, planners, and institutional leaders. It only means that the viewpoint of the local groups of the public is considered before the resources for development projects are allocated and distributed, and that suggestions for changes in the policy are taken into consideration.

CHAPTER FIVE
RESEARCH FINDINGS

5.1. Introduction

The current chapter presents findings of the study with focus on social-demographic characteristics of participants and research objectives.

5.2. Social-demographic Background

Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
age	92	53	16	69	35.34	15.437
Valid N (list wise)	92					

Table 1 Descriptives

Table 1 shows the ages of the participants. The average age is 35.34, and the standard deviation is 15.437. It can also be observed that the minimum and the maximum ages were 16 and 69 years respectively.

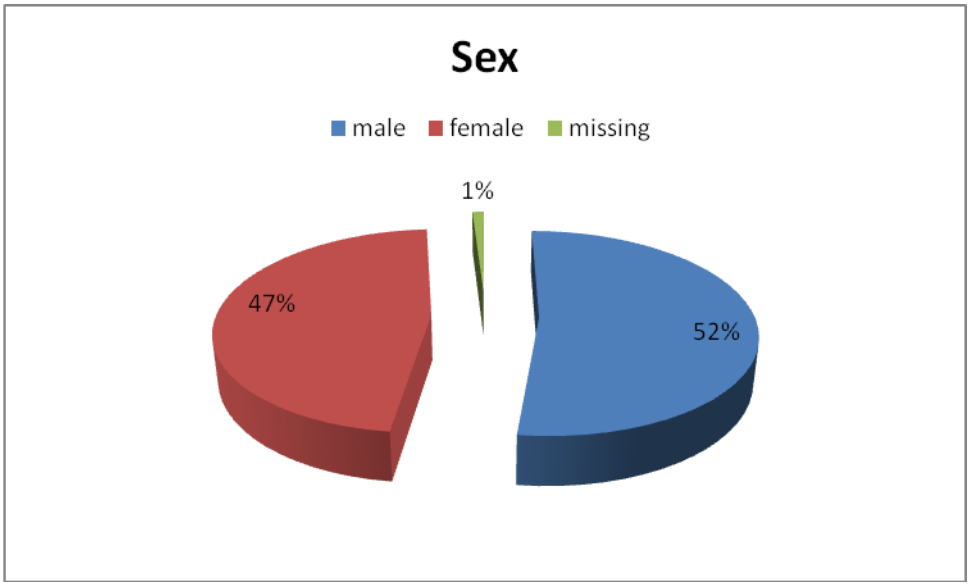

Figure 2 Sex

Figure 2 depicts gender distribution, 52% were male, 42% were female, and 1% of the respondents did not indicate their sex. It can further be seen that male respondents were more than the female respondents.

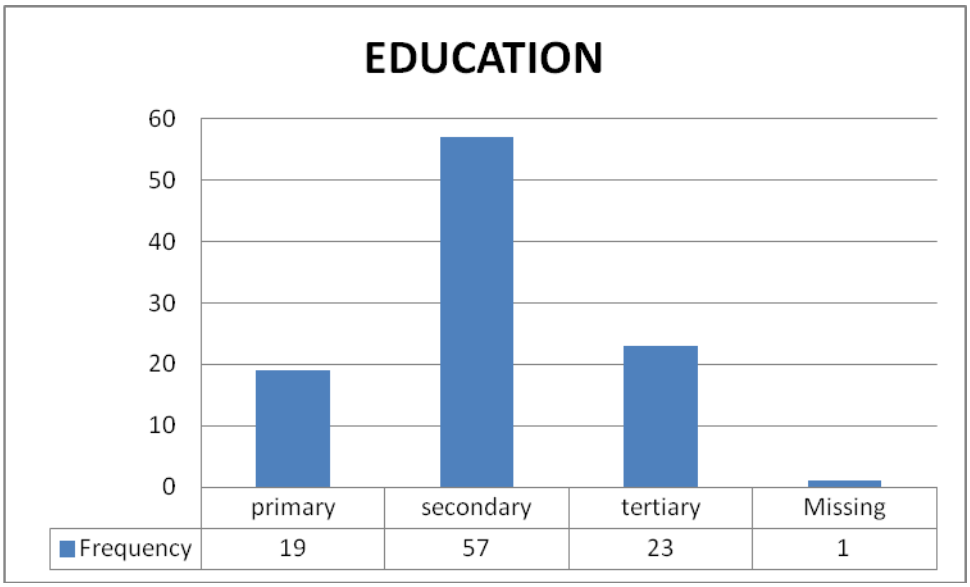

Figure 3 Education level

Figure 3 shows the level of education of the participants. It can be clearly seen that most of the participants attained a secondary school level with the frequency of 57, tertiary with the frequency of 23, primary with the frequency of 19, while 1 did not indicate their level of education.

Language literacy

Able to read and write:	Yes %	No %
English	85	15
Nyanja	49	51
Bemba	33	67
Tonga	4	96
Lozi	4	96

Table 2 language literacy

Table 2 shows the distribution of language literacy. English being the official language in Zambia, therefore, to some extent measures a person's level of literacy. It is clearly observed that 85% of the respondents were English literate, while a compliment was not. It can further be observed that at least each of the respondents were able to use their mother, and other local languages.

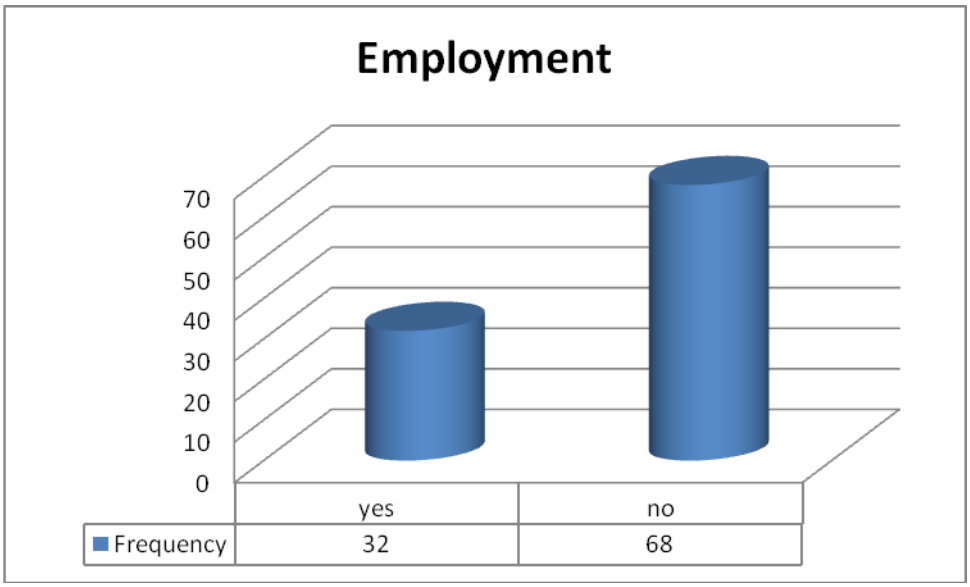

Figure 4 Employment

In figure 4 it can be observe that the levels of unemployment are very high with the frequency of 68, while 32 were employed.

The follow up question required participants to state exactly the type of employment, and the following table gives their responses:

Question	Answer	
	Positive answer	**Negative answer**
What do you know about the project?	production attendant	still at school
	receptionist	
	sales and marking representative	
	metal fabrication	
	hair dresser	
	medical officer	
	businessman/lady	
	barberman	
	bar attendent	
	cashier	
	auto-mechanic	
	security guard	
	steel fixer	
	contractor	
	office assistant	

Table 3

sources of information in the area			
Source of information:	Yes %	No %	Missing %
Phone	46	53	1
Television	85	15	0
Radio	66	34	0
Internet	21	79	0
Bill Boards	18	82	0
Campaign van	11	89	0
Community meetings	13	87	0
Letters	14	86	0

Table 4

Table 4 shows the sources of information available in the area, it can clearly be seen that of the means of communication available, the 3 most effective included television representing 85%, radio representing 66%, and phone representing 46%; while the rest were useful they were not effective. 1% of the respondents did not mention the source of information which was effective to them.

Question 21 was trying to establish other sources of information to the area, and the responses were tabulated as follows:

Question	**answers**
Specify other forms of communication	Facebook
	drama performances
	door-to-door

Table 5

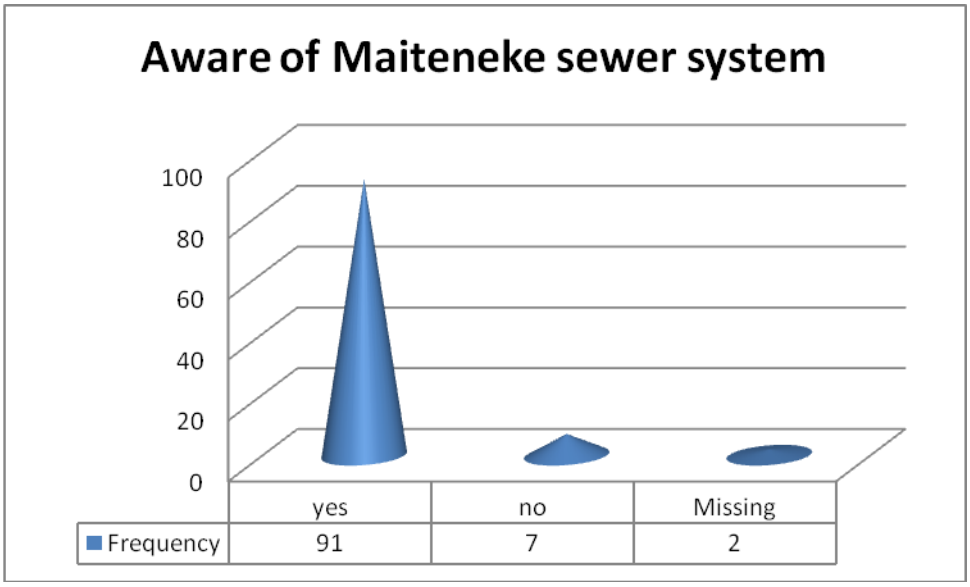

Figure 5 Aware of Maiteneke sewer project

Figure 5 represents that most of the respondents were aware of the Maiteneke sewer network project undertaken by the Lusaka Water and Sewerage Company (LWSC) with the frequency of 91, while 7 said they were not aware, and 2 did not say anything.

Question 23 required the respondent to detail what they knew about the Maiteneke sewer network project, and gave the following answers:

Question	Answer	
	Positive answer	Negative answer
What do you know about the project?	*"....Replacing old sewer network system with new sewer network system..."*,	*"....it is not fully and properly done...".*
	".....to improve the sewer system from the old one to the new system to avoid the blockages of the sewer lines...",	
	"....the project was put in place to provide a perfect and suitable sewer line for the people of Maiteneke so as to put an end to the pit latrines that were being used....",	
	'....However, one of the respondents while acknowledging being aware of the project said that....;	

Table 6

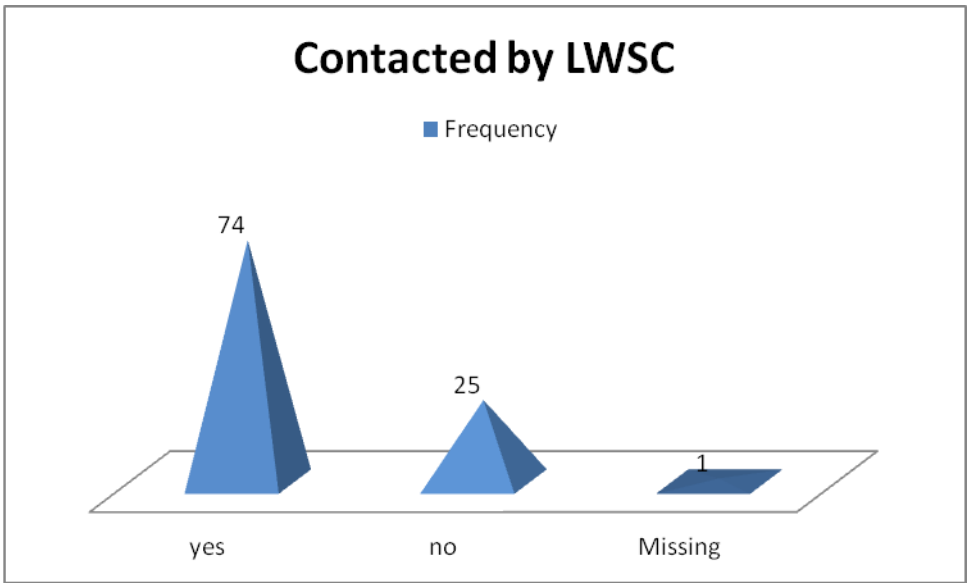

Figure 6 Contacted by LWSC

Figure 6 shows whether the residents were contacted by the LWSC over the Maiteneke new sewer system project. 74 said yes, 25 said no, while 1 did not indicate.

The follow up question to question 24 which was asking participants to confirm the means by which they were contacted by LWSC and had the following responses:

Question	Answer
What means of communication did LWSC use?	*''...public and private addresses and visitations by LWSC officers....'',*
	''....they sent their workers to tell us about the project and we were given forms to fill in...'',
	''....campaign van, TV announcements, drama, and songs...they used traditional players and drama, - they used campaign rally and van...community meeting...they were going round Maiteneke telling people about the sewer project...'',
	''....text messages on phone...Television and Radio adverts and door to door letter distribution....they conducted van campaigns at Kasamba basic school and meetings were held and the area MP was present and t-shirts were printed''
	While another one said; ''…..project manager…''.

Table 7

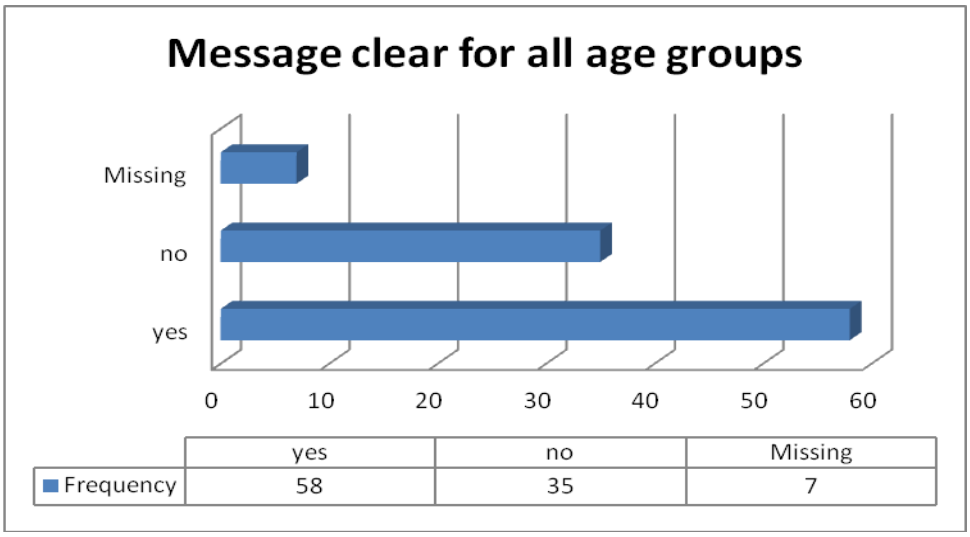

Figure 7 message clear for all age groups

Figure 7 shows the number of respondents who said the message by the LWSC about Maiteneke new sewer system project was clear. It can be observed that those who said yes

were more with a frequency of 58; those who said no had a frequency of 35, while those with a frequency of 7 did not provide any response to the question.

In the follow up question (13) the respondents were asked what could have been done better if the message was not clear for all age groups. In response they said:

Question	**Answer**
What could have been done better?	*''...they could have printed out letters in different languages to inform people on the importance of the project....''.*
	''....everyone including children understood the message...'',
	''....Tv and radio adverts because they are accessible by all...community meetings to educate people of all age groups in the community...they should have made information available in local languages too...they should have told us the outcome of the project beforehand...they sholud have communicated to the people beforehand...they could have written letters to all households or going door to door...they should have done a door to door meeting in order for the community to understand better...at least passing through and drop some letters and gather a meeting to explain the maintenance in full details...use of TV, newsletters or flyers to every home would have been helpful...by using multifaceted media approach not single approach...there was need to totally involve community in the decision making process of the project...''.

Table 8

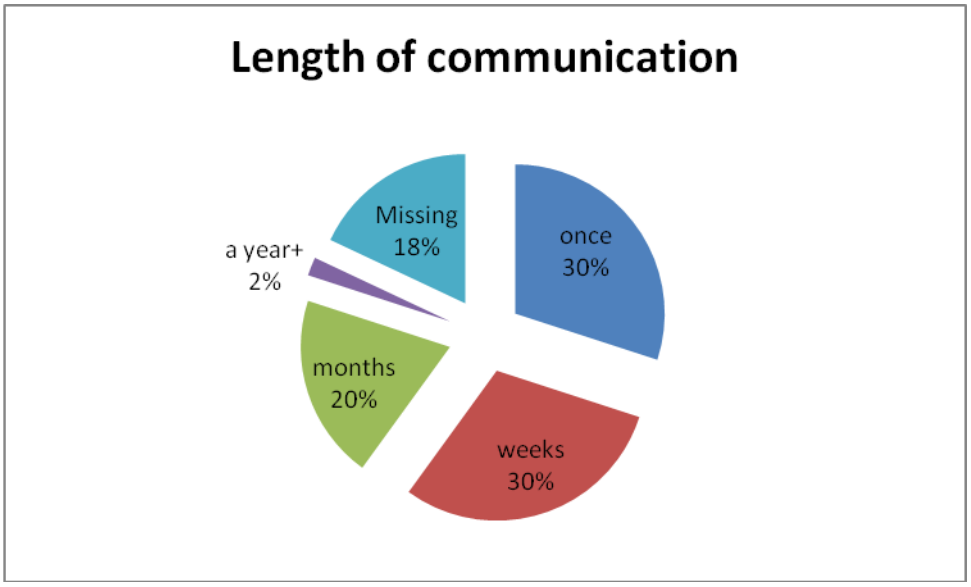

Figure 8 Communication sustenance

Figure 8, respondents who said that communication was sustained once and weekly were equal at 30%, while 20% said for a month, 2% said for a year and above, but 18% did not respond to the question.

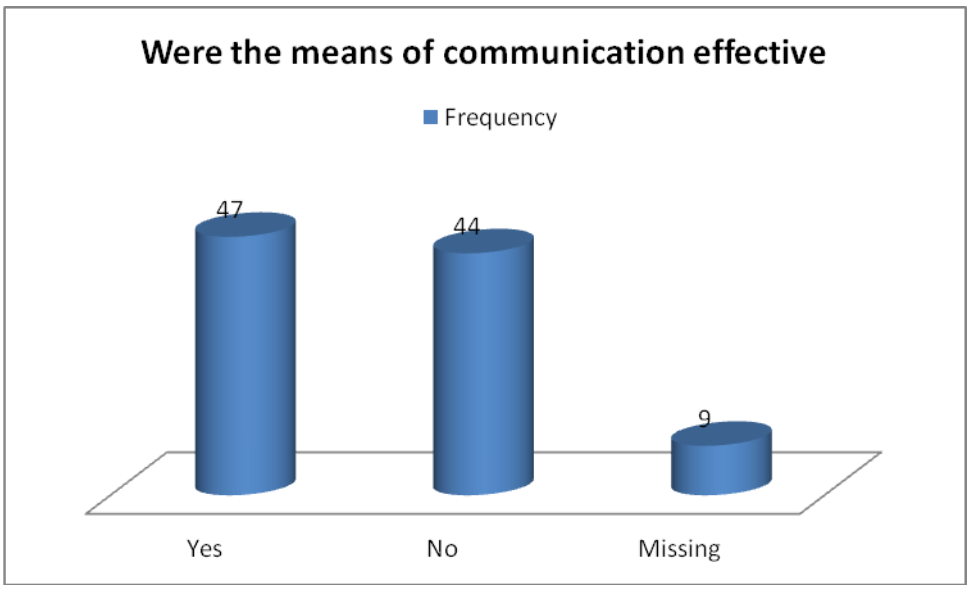

Figure 9 Effective means of communication

Figure 9 represent responses to the question whereby the means of communication were effective. 47 said yes, 44 said no, while 9 remained silent on the matter. The results above indicate that the means of communication needed to be improved. The difference between those who said yes and those who said no was not much, but meant there was need to improve. The number of those who did not respond to the question (9) clearly indicates or shows that the means of communication was not very effective.

The follow up question required respondents to explain how effective the means of communication were and following were their responses;

Question	Answers	
Was the message clear?	Positive answers	Negative answers
	''...LWSC visited the area with the area Member of Parliament to explain the purpose of the project at an organised meeting ...the source of information used has brought about co-operation between LWSC and the community...there was good exchange of views between LWSC officers and the residents on the subject matter...'',	While other respondents said;''...very few people understood their message and the language they were using (English)...'',''...communication should start before the project in order for people to understand...''.
	''...they brought traditional dancers who acted a sketch which made everyone understand...drama performances teaching or demonstrating information through drama, distribution of notices, and talking to households one on one...'',	
	''...they used a van to go round the community to inform us about the project by calling for a meetings to educate people how important the changing of the old network to new sewer network and how they can benefit from it...'',	
	''...I was able to read and know what was going to take place in my area...'',	
	''...holding series of meetings to sensitise people, to avoid throwing sponges in the toilets...'',	
	''...they were using mega phones and on TV....cell phones and TV announcements...''.	
	''...most of the people are unemployed and the campaign van was seen with children following it...'',	

Table 9

In Q17 the researcher wanted to know other means of communication respondents suggested would have been effective in the area during the project, and the answers were as follows:

Question	**Answer**	
What other means of communication did LWSC use?	**Positive answer**	**Negative answer**
	''...television, community meetings and the church...'',	''...they could have attached a letter to the water bills for each household and use of campaign vans...''.
	''....brochures in local languages...'',	
	''...door to door campaign, Newspaper adverts and phone SMS messages...contact the residents through mass messaging system using the phone numbers in the database of Maiteneke area...'',	

Table 10

CHAPTER SIX
DISCUSSIONS OF FINDINGS

6.1. Introduction

This chapter presents a discussion of findings of the study. These discussions are highlighting objectives of the study.

6.2. Discussion on objectives

The general objective of this report was to evaluate the effectiveness of the communication strategies used by LWSC in resolving sewer problems in Maiteneke.

- The general objective was adequately tackled by the following specific objectives: To establish the communication strategies used by LWSC in resolving sewer network problems in Lusaka's Maiteneke area,
- To establish community's perceptions over the communication strategies used by LWSC in the project,
- To determine challenges faced by LWSC with regards to the communication strategies used in Maiteneke, and
- To establish ways in which LWSC can improve its communication strategies in Maiteneke.

The study was undertaken in selected Maiteneke area of Matero Township in Lusaka with a sample size of 100. The objectives were comprehensively tackled in the foregoing.

			Education			
			Primary	Secondy	Tertiary	Total
Were_the_means_of_communication_effective?	Yes	Count	13	26	7	46
		% of Total	14.4%	28.9%	7.8%	51.1 %
	No	Count	5	27	12	44
		% of Total	5.6%	30.0%	13.3%	48.9 %
Total		Count	18	53	19	90
		% of Total	20.0%	58.9%	21.1%	100. 0%

Figure 10 Cross tabulation

To find out whether the respondent's level of education had any effect on the effectiveness of the means of communication, the researcher undertook a cross tabulation test. In the cross

tabulation above the percentage differences are very small to merit any effect. The researcher intuitively concluded that the respondent's level of education has no effect on the effectiveness of the means of communication. To validate the researcher's intuitive conclusion a chi-square test was done to statistically prove the claim above.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.848[a]	2	.089
Likelihood Ratio	4.989	2	.083
Linear-by-Linear Association	4.536	1	.033
N of Valid Cases	90		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.80.

Table 11

H_0: Independence between the above two variables

H_1: the two variables are **NOT** independent

The rule of thumb states that if the P-value is less than 0.05 (5%) we reject the null hypothesis. In the Chi-square test above the observed P-value is greater than 0.05 (5%) that is 0.089 therefore, it failed to reject the null hypothesis and conclude that there is no significant difference between the two variables.

Pearson Chi-Square Tests

		source_of_info_phone	source_of_info_tv	source_of_info_radio	source_of_info_internet	source_of_info_billboards	source_of_info_campaignVan
read_write_English	Chi-square	7.801	1.884	.283	4.691	3.874	2.181
	df	1	1	1	1	1	1
	Sig.	.005[*]	.170[b]	.595	.030[*,b]	.049[*,b]	.140[b]
read_write_Nyanja	Chi-square	7.292	3.522	3.872	5.351	2.742	.152
	df	1	1	1	1	1	1
	Sig.	.007[*]	.061	.049[*]	.021[*]	.098	.697
read_write_bemba	Chi-square	5.868	3.087	.993	7.008	1.300	.183
	df	1	1	1	1	1	1
	Sig.	.015[*]	.079[b]	.319	.008[*]	.254	.668[b]
read_write_Tonga	Chi-square	4.803	.735	.150	2.112	2.891	.515
	df	1	1	1	1	1	1
	Sig.	.028[*,b]	.391[b,c]	.698[b]	.146[b,c]	.089[b,c]	.473[b,c]
read_write_Lozi	Chi-square	1.365	.735	2.146	2.112	.915	.515
	df	1	1	1	1	1	1
	Sig.	.243[b]	.391[b,c]	.143[b]	.146[b,c]	.339[b,c]	.473[b,c]

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the .05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

Table 12

The Pearson chi-square above was done to find out if the literacy of the people had any effect on the communication strategies (sources of information) used.

H_0: Independence between literacy and means of communication

$H_{1:}$ No independence between literacy and means of communication

The rule of thumb states that reject the null hypothesis if the P-value is less than 0.05. In the Chi-square test above the observed P-values for the test of independence between literacy (able to read and write) and means of communication (use of phone, and internet) is less than or equal to 0.05, we therefore reject H_0 and conclude that the two variables and statistically not independent. It can generally be concluded that Phone use and internet use have a dependence on someone's literacy. While the observed P-values for the independence between literacy (able to read and write) and the means of communication (use of T.V, Radio, Bill boards, and campaign vans) were greater than or equal to 0.05, therefore, it failed to reject the null hypothesis and conclude that the two variables are statistically independent. Generally, it can be conclude that the means of communication (use of T.V, Radio, Billboards, and Campaign van) do not depend on a person's literacy.

Information source:		age (Binned)						
		<= 15	16 - 25	26 - 35	36 - 45	46 - 55	56 - 65	66+
		Count	Count	Count	Count	Count	Count	Count
source_of_info_phone	yes	0	16	11	3	7	3	1
	no	0	17	10	8	5	8	2
source_of_info_tv	yes	0	29	19	10	10	9	2
	no	0	4	3	1	2	2	1
source_of_info_radio	yes	0	22	16	7	9	5	1
	no	0	11	6	4	3	6	2
	Total	0	33	22	11	12	11	3
source_of_info_internet	yes	0	12	3	0	2	0	0
	no	0	21	19	11	10	11	3
	Total	0	33	22	11	12	11	3
source_of_info_billboards	yes	0	7	5	0	2	0	0
	no	0	26	17	11	10	11	3
	Total	0	33	22	11	12	11	3
source_of_info_campaignVan	yes	0	4	1	1	1	0	0
	no	0	29	21	10	11	11	3
	Total	0	33	22	11	12	11	3
source_of_info_communityMeetings	yes	0	4	2	0	2	0	0
	no	0	29	20	11	10	11	3
	Total	0	33	22	11	12	11	3
source_of_info_letters	yes	0	5	2	1	3	0	0
	no	0	28	20	10	9	11	3
	Total	0	33	22	11	12	11	3

Table 13

In table 13 the researcher was testing to find out if the age of a person has any effect on the means of communication used. He decided to group the ages of the respondents in tents and produced seven groups, and tested to find out whether the means of communication was independent of age. It can be clearly seen that 15 years and below were not captured in the research. Generally, it can be observed that the means of communication had an impact on the age group. On almost all the means of communication, a general decline is observed (between 16-25 and 66+ years) as the age increases. It can generally be concluded that the means of communication relatively had an effect on age, but the effect declined with age.

6.3. Focus Group Discussions

The researcher also conducted five focus group discussions in Maiteneke community with the respondents and the outcome of these meetings were as in the foregoing:

Respondents were asked to justify why they thought the other means of communication other than those used by LWSC could have worked and had the following to say:

Question	Answer	
	Positive answer	**Negative answer**
What other means of communication do think LWSC would have used	*''...they are faster and convenient...because it addresses an individual reducing the chances of leaving out others...it could have worked because everyone would have been reached...because others are not always in the community...they can receive instant feedback from the community...these are more closer to the people and the message could be easily transmitted...because many people do not understand English...'',*	Other respondents said;''...because there is communication breakdown between the utility company and the community...at least people would have been given more information of what is going on in the area before they started...''.''.....people can easily read fliers given to them, they like music, and seeing billboards all over...because people pay attention to campaigns, and 95% of the people watch TV and listen to the radio...''.
	''...Because many people in the community do not understand English thus community meetings will cause people to demand for the language they understand....'',	
	...people who go for work during the day can find a flyers, newsletter or watch tv when they get back instead of missing on all developmental news...because people could have paid attention to the message as they do with the water bills...''.	
	''...announcements could have been in local languages for most residents to understand, - SMS messages could have been seen by most people because almost every household has a cell phone; same for TV...''.	
	''...because it targets individuals, making them feel part of responsible enough to safeguard the new sewer system...''.	

Table 14

Respondents were further asked to explain how the means of communication they thought could have worked:

Question	Answer	
	Positive answer	**Negative answer**
Which other forms of communication?	*''...it should have been sustained for almost a year so that everybody should be aware of the project and everybody agree…advertising on Tv and radio was going to be better so that the community understands better…LWSC could properly disseminate the message through newspapers, or even using the local churches …if this was done door to door it would*	Another respondent said;''*…they did not use any form of communication to reach me…''.*

Table 15

The recommendations that the respondents gave to LWSC that would help the water utility company to communicate effectively to their consumers were as follows:

Question	Answer
What recommendations would you give LWSC over communication strategies?	*''…They should educate the people on how to take care of infrastructure by sending its personnel other than just SMS…'',* *''…they should be available and accessible to the community to get community views…* *''…they should improve on individual communication either by phone calls or door to door outreach...'',* *''…they should be advertising on both radio and TV during prime time news…'',* *''.....they should respond to community complaints with the agency it deserves…'',* *''....they should allow the community to give feedback on their message…'',* *''...they should continue informing the community through phones…'',* *''.....they should inform the community if the project is finished or not because the community is not aware…'',* *''....LWSC should use other sources of information unlike using one source of information (community meeting)…'',* *''....they should go round to check how effective their project was and be able to get feedback from the people…''.*

Table 16

6.4. In-Depth Interviews

The researcher undertook in-depth interviews with Lusaka Water and Sewerage and Company (LWSC) which is a commercial water utility company in the country (Zambia) providing water and sanitation services to Lusaka Province. The following were the questions and responses:

QUESTION	RESPONSE
1. Did you have the communication strategy in place in the Maiteneke sewer network project?	*"…We had a low budget plan with no financial allocation. This was a politically motivated project…"*
	"…No allocation for software was given only for the actual hardware. Money was only for the actual infrastructure no money for software was given so we had to go by the skeleton plan with a limited budget that would not use valuable costs but finished costs No comprehensive plan but a skeleton plan was in place…"
2. If yes what communication strategy did you use in the project?	*"…Strategies were in form of activities. Door to door outreach, dropping of letters face to face engagements through meetings at Matero basic school poor attendance though only about 100 people in attendance, further on through the* ***CDF*** *the local authorities proposed that they would fund an official launch at a budget of* ***k40,000…"***
3. Why did you use this particular communication strategy in this project?	*"…Due to limited resources e.g. stationery we had no choice, in fact door to door turned to be the most effective means of communication. Three main dynamics in terms of the audience segmentation failed, i.e. land lord, tenants, and dependants…"*
4. Where you satisfied with the outcome of the strategy in the project?	*"…Based on the resources available, we were comfortable though not satisfied …"*
5. Did the community participate in the project?	*"…Yes and no… yes in the sense that the community through the political structures participated. No in that there were other structures that did not participate, e.g. religious structures…"*
6. Where you satisfied with the levels of participation by the community?	*"…From the political perspective yes and from the tenants Perspective not from the religious perspective and the land lord perspective…"*
7. What challenges did you face in the community where communication is concerned?	*"… the challenges we faced were: segmentation of targeted audience, finding the target audience and other sections of the community did not participate, e.g. religious groupings…"*
8 what did you do to address these challenges?	*"…unfortunately we had to work with a skeleton budget without any allowances..."*
9. What are you doing to improve community participation in your future projects?	*"…at the planning stage of every project we will have a communication budget to be addressed at a development stage budgeting should be for both hardware and software as well community participation will be all inclusive in that all sectors will be part and parcel at the initial stage of any project…"*

Table 17

The researcher also undertook in-depth interviews with National Water Supply and Sanitation Council (**NWASCO**) which is the regulating authority for all water utility companies in the country (Zambia). The following were the questions and responses:

QUESTION	RESPONSE
1. What was the role of NWASCO in the Maiteneke sewer network project by the LWSC?	*''.....the National Water Supply and Sanitation council (**NWASCO**) directed Lusaka Water and Sewerage Company (**LWSC**) to use **3.7 billion kwacha** sanitation levy and address the poor sanitation in Lusaka's Maiteneke area of Matero township....this was after a spot check inspection undertaken by **NWASCO** which revealed the design capacity of the infrastructure exceeded the demand by the population because there are more people in the area than originally planned for. Further the inspection showed that the infrastructure was very old and was constantly under repair by (**LWSC**). To compound this, illegal structures have been built on top of sewer lines making it difficult for the utility company to access the lines in times of rehabilitation.....about **600** properties translating to a population of **4800** were affected in the area...''.*
2. Are you aware of the communication strategies that LWSC used in the project?	*''....yes...''.*
3. If yes, are you satisfied with the strategy that LWSC used in the project?	*''.... **LWSC** uses an inclusive approach when marketing sanitation services. The approaches embrace the consumers from inception of the project to understand the scope of work and their responsibilities during the implementation of the project. This is done to have the community on board from the onset...''.*
4. Did the community take part in the project?	*''....yes they did...''.*
5. Were you satisfied with the levels of participation by the community?	*''.....yes we were though some members of the communitythat did not want to buy toilet pans. LWSC went a step further to come up with a payment plan where the water utility company bought toilet pans for the community and recover over a period of time....''.*
6. What challenges did you face in the community where communication is concerned?	*''.....a few community members did not appreciate paying for the service and wanted LWSC to give them a service for free...''.*
7. What measures are you putting in place to improve communication between LWSC and the communities they serve?	*''....we involve the consumers in regulation using structures called **water watch groups.** These are volunteers whom we work with to communicate **NWASCO's** services and educate the public on the responsibilities of **LWSC** and consumers' responsibilities. The water watch groups sensitise consumers using different tools like Radio, drama, one on one interactions and focus group discussions...''.*

Table 18

6.5. Objective Analysis

General Objective:

- To evaluate the effectiveness of the communication strategies used by LWSC in resolving sewer problems in Maiteneke.

Specific Objectives

- To establish the communication strategies used by LWSC in resolving sewer network problems in Lusaka's Maiteneke area.
- To examine the channels used in communicating to the affected community.
- To establish community's perceptions over the communication strategies used by LWSC in the project.
- To determine challenges faced by LWSC with regards to the communication strategies used in Maiteneke.
- To establish ways in which LWSC can improve its communication strategies in Maiteneke

In order to address the objectives fully, the researcher pursued them in a detailed approach.

6.5.1. First Objective: To establish the communication strategies used by LWSC in resolving sewer network problems in Lusaka's Maiteneke area.

The first objective seeks to establish the communication strategies used by LWSC in resolving sewer network problems in the Lusaka's Maiteneke area. This objective is addressed by **Q11** which looked at the Communication strategies Lusaka Water and Sewerage Company used in resolving sewer problems in Maiteneke area. The study therefore established the following as communication strategies used by LWSC: community meeting, door-to-door campaign, TV and radio adverts, campaign van, and letter writing and mobile phone messages.

The study also established that some participants were contacted (74%) by LWSC using some of the strategies mentioned above while others (25%) were not contacted; (1%) did not respond to this question as shown in the figure below:

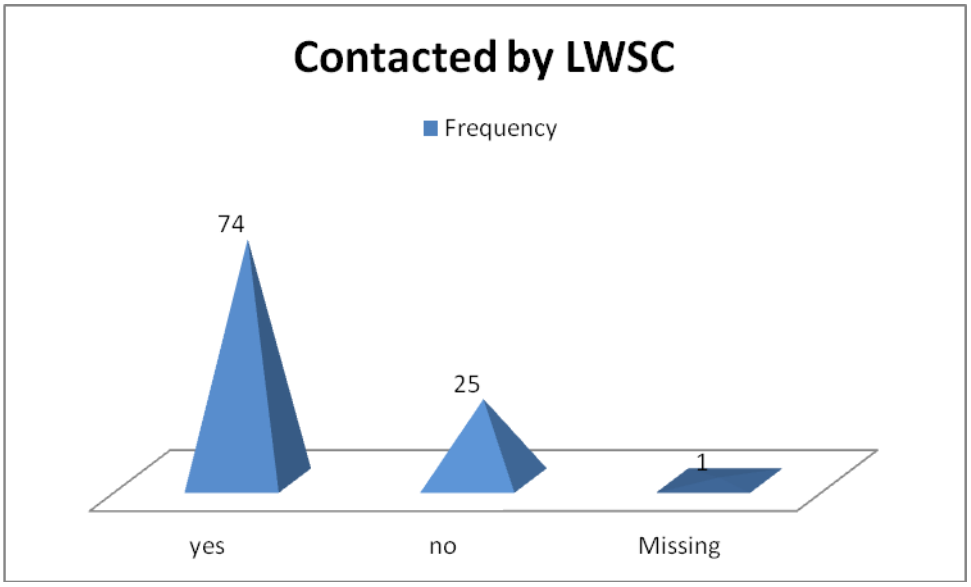

Figure 11 Contacted by LWSC

Figure 11 shows whether the residents were contacted by the LWSC or not over the Maiteneke new sewer system project. 74 said yes, 25 said no, while 1 did not indicate.

Participants contacted by LWSC had the following responses in the table below:

Question	Answer
What means of communication did LWSC use?	*''...public and private addresses and visitations by LWSC officers....'',*
	''....they sent their workers to tell us about the project and we were given forms to fill in...'',
	''....campaign van, TV announcements, drama, and songs...they used traditional players and drama, - they used campaign rally and van...community meeting...they were going round Maiteneke telling people about the sewer project...'',
	''....text messages on phone...Television and Radio adverts and door to door letter distribution....they conducted van campaigns at Kasamba basic school and meetings were held and the area MP was present and t-shirts were printed''
	While another one said; ''…..project manager…''.

Table 19

6.5.2. Second Objective: To examine the channels used in communicating to the affected community

The second objective was to examine the channels used in communicating to the affected community. This objective was fully tackled by Q7 which deals with channels Lusaka Water and Sewerage Company used in communicating to the affected residents of Maiteneke community. On this objective, findings of the study are indicated in the table below:

sources of information in the area			
Source of information:	Yes %	No %	Missing %
Phone	46	53	1
Television	85	15	0
Radio	66	34	0
Internet	21	79	0
Bill Boards	18	82	0
Campaign van	11	89	0
Community meetings	13	87	0
Letters	14	86	0

Table 20

Table 20 shows the sources of information available in the area, it can be clearly seen that of the means of communication available, 3 were most effective and these include television representing 85%, radio representing 66%, and phone representing 46%; while the rest were useful but they were not effective. 1% of the respondents did not mention the source of information which was effective to them.

Question 21 wanted to establish other sources of information available in the area, and a few said the following:

Question	**answers**
Specify other forms of communication	Facebook
	drama performances
	door-to-door

Table 21

6.5.3. Third Objective: To establish community's perceptions over the communication strategies used by LWSC in the project.

The third objective was to establish the community's perceptions over the communication strategies used by LWSC in the project. The perceptions of the people with regards to the communication strategies used by LWSC were conclusively tackled by Q12, Q13, Q14, Q15 and Q16.

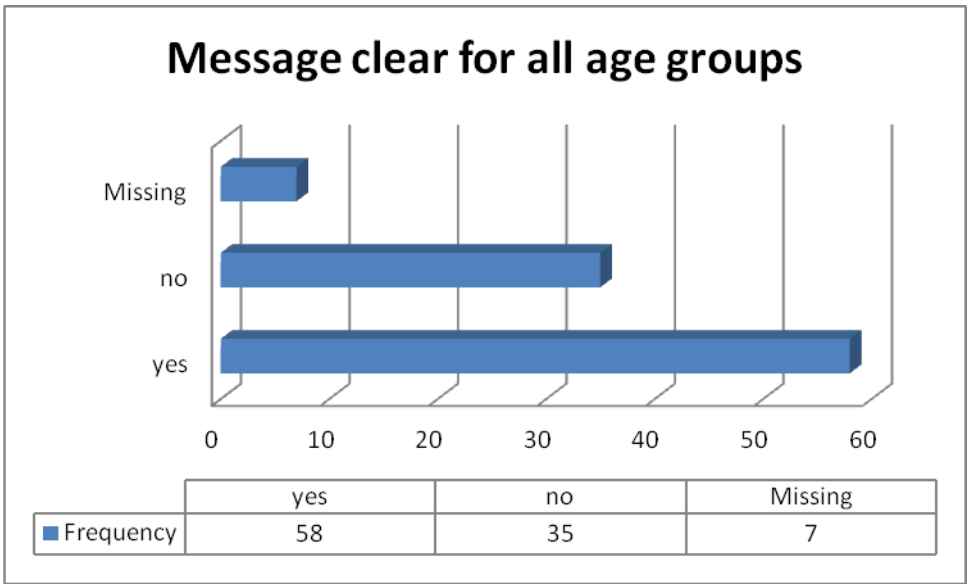

Figure 12

The bar chart above shows the number of respondents who said the message by the LWSC about Maiteneke new sewer system project was clear. It can be observed that those who said yes were more with a frequency of 58, those who said no had a frequency of 35, while those with a frequency of 7 did not provide any response to the question.

In the follow up question (13) the respondents were asked what could have been done better if the message was not clear for all age groups. In response they said;

Question	Answer
What could have been done better?	*''...they could have printed out letters in different languages to inform people on the importance of the project....''.*
	''....everyone including children understood the message...'',
	''....Tv and radio adverts because they are accessible by all...community meetings to educate people of all age groups in the community...they should have made information available in local languages too...they should have told us the outcome of the project beforehand...they sholud have communicated to the people beforehand...they could have written letters to all households or going door to door...they should have done a door to door meeting in order for the community to understand better...at least passing through and drop some letters and gather a meeting to explain the maintenance in full details...use of TV, newsletters or flyers to every home would have been helpful...by using multifaceted media approach not single approach...there was need to totally involve community in the decision making process of the project...''.

Table 22

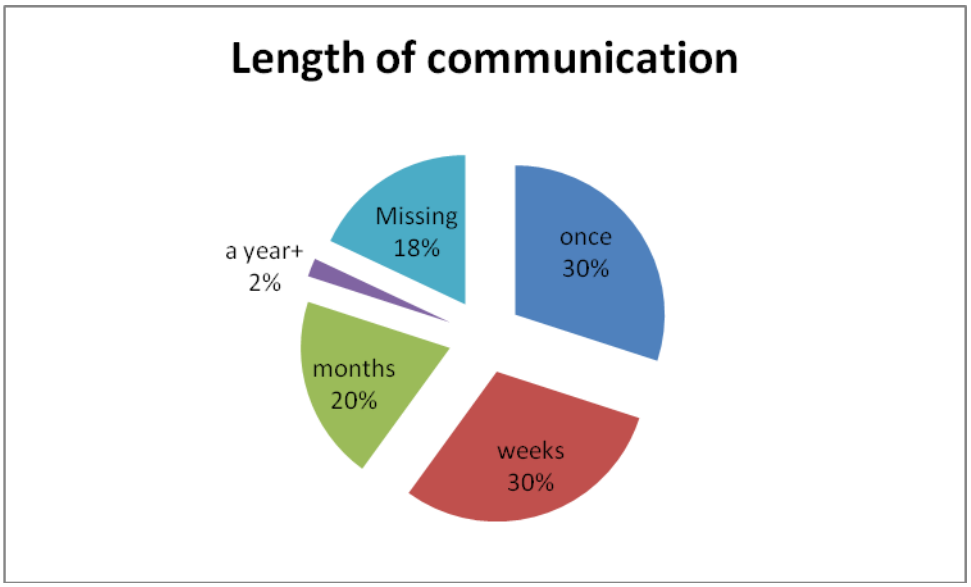

Figure 13

Figure 13 shows respondents who said that communication was sustained once and weekly were equal at 30%, 20% said for a month, 2% said for a year and above, while 18% did not respond to the question.

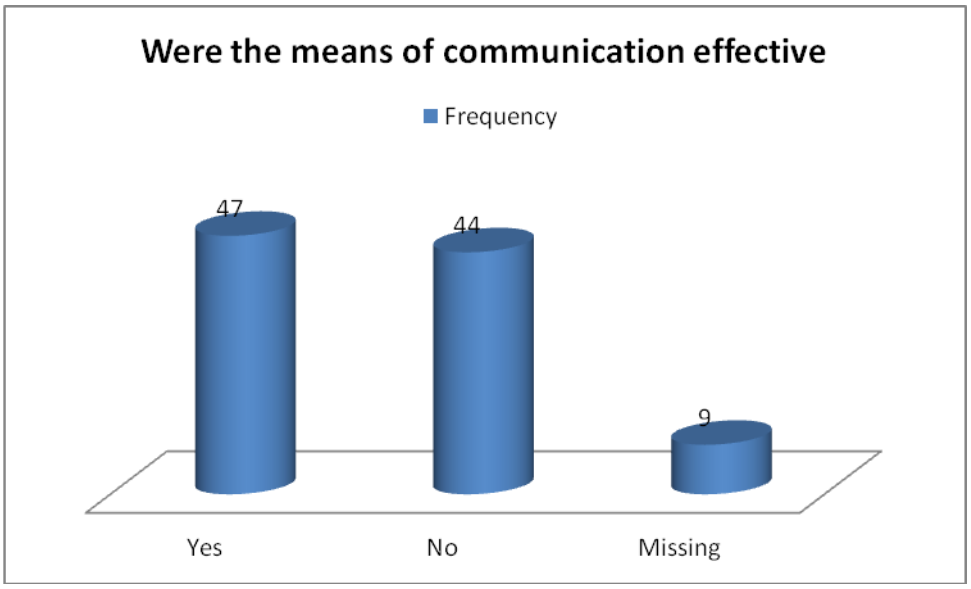

Figure 14

Figure 14 represents responses to the question whether the means of communication were effective. 47 said yes, 44 said no, while 9 remained silent on the matter. The results above indicate that the means of communication were not very effect as evidenced by the difference between those who said yes and those who said no. The number of those who did not respond to the question (9) remains a grey area as to whether the means of communication were effective or not. This grey area was only explained by looking at other questions.

The follow up question required respondents to explain how effective the means of communication were and the following were their responses;

In Q17 the researcher wanted to know other means of communication respondents suggested would have been effective in the area during the project, and the answers were as follows:

Question	**Answer**	
What other means of communication did LWSC use?	**Positive answer**	**Negative answer**
	''…television, community meetings and the church…'',	''…they could have attached a letter to the water bills for each household and use of campaign vans…''.
	''….brochures in local languages…'',	
	''…door to door campaign, Newspaper adverts and phone SMS messages...contact the residents through mass messaging system using the phone numbers in the database of Maiteneke area…'',	

Table 23

6.5.4. Forth Objective: To establish ways in which LWSC can improve its communication strategies in Maiteneke

The forth objective of the study was to establish ways in which LWSC can improve its communication strategies in Maiteneke. This objective was comprehensively tackled by responses to question 20 which considered the recommendations that respondents gave to LWSC that would help the water utility company to communicate effectively to their consumers and were as follows:

Question	**Answer**
What recommendations would you give LWSC over communication strategies?	*''…They should educate the people on how to take care of infrastructure by sending its personnel other than just SMS…'',* *''…they should be available and accessible to the community to get community views…* *''…they should improve on individual communication either by phone calls or door to door outreach...'',* *''…they should be advertising on both radio and TV during prime time news…'',* *''…..they should respond to community complaints with the agency it deserves…'',* *''….they should allow the community to give feedback on their message…'',* *''....they should continue informing the community through phones…'',* *''…..they should inform the community if the project is finished or not because the community is not aware…'',* *''….LWSC should use other sources of information unlike using one source of information (community meeting)…'',* *''….they should go round to check how effective their project was and be able to get feedback from the people…''.*

Table 24

Below are the photo inserts for the Maiteneke sewer network work project by the LWSC under the auspice of the water and sanitation authority NWASCO:

In the photo above, the area member of parliament (MP) Mr Miles Sampa, with LWSC officers, and some residents flagging off the construction of the sewer network in Maiteneke area of Matero township in Lusaka.

LWSC workers at the Maiteneke sewer project site

In the photo above are some of the popular musicians who were performing at the ground breaking ceremony in the Maiteneke sewer project in Matero.

CHAPTER SEVEN
CONCLUSION AND RECOMMENDATIONS

7.1. Introduction

This chapter presents the conclusion and recommendation based on the findings and discussion of the current study. The chapter also highlight implications of the study on further research.

7.2. Conclusion

It is evident that NWASCO responded to the dilapidated sewer infrastructure in Maiteneke area of Matero Township in Lusaka by instructing the Lusaka Water and Sewerage Company (LWSC) to work on the project, and financing the project.
In executing the project, LWSC however devised a skeleton communication channel to reach all the residents who were the beneficiaries of the project. The means of communication was not very successful and the whole project was itself a failure in terms of communication.

7.3. Recommendations

- The water and sanitation authority NWASCO and LWSC should not wait for complaints through the media to attend to sanitation problem, but should enforce an active watch group to effectively respond to sanitation related problems.
- There should be deliberate effort on the part of LWSC to engage and encourage community participation in Sanitation projects by using various communication strategies of informing the community on the importance of Sanitation and Hygiene.

The Communication Strategies should clearly define:

- The audience receiving the information (the who);
- The content of the information (the what)
- The methods to be used to convey the information (the how); and
- The approaches to promote action for change (the action).

This is achieved through advocacy, interpersonal communication and community mobilization with overall multi-media support including mass media, digital media and social media

- The Maiteneke Community has a community set-up that finds communication easily filtering through the community via prominent areas of interaction such as the Church, market places and bus station. Its primary source of information about community projects is primarily from within the community (Interpersonal communication). The Church is a central pillar in the dissemination of information in the community. It is therefore recommended that LWSC should collaborate with institutions like the church through which community members can easily access information.

- Mass media that is, television, radio, newspaper; may be used only to reinforce messages that are designed and communicated by and within the community. In the findings of this report, mass media did not come out as a major source of information.

- Nyanja is the language of the community in Maiteneke. Despite the community being of a mixed nature in terms of tribe and language, the Maiteneke community uses Nyanja as a language of daily interaction. English is also a language that is easily understood by the majority of community members. This is consistent with the educational profile of the community. It is therefore, easier to communicate to the community using English and Nyanja.

7.4. Further Research

From the findings of this study, it may be necessary in future to conduct a research on the conduct of community projects and communication strategies bordering on trust, transparency and accountability between the community and project implementers.

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APPENDIX I: Research Questionnaire.

Questionnaire #:.....

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF MASS COMMUNICATION
MCD RESEARCH QUESTIONNAIRE

Dear Respondent,

I am a Masters student in the School of Humanities and Social Sciences at the University of Zambia. I am currently undertaking a research as a requirement in partial fulfilment for the award of the Masters degree in Communication for Development (MCD).

You have been purposefully selected to be part of a research that is investigating the **Effectiveness of communication strategies used by Lusaka Water and Sewerage Company. in resolving sewer network problems in Maiteneke area of Matero township** .

Kindly note that the information you will provide in answering this questionnaire will be purely for academic purposes and will be treated with highest confidentiality and privacy. I therefore, kindly request that you fill in this questionnaire with objectivity and truth. To ensure that confidentiality is maintained in its strongest terms, you are requested not to write your name on this questionnaire.

Thanking you in anticipation for your valued cooperation.

Yours Sincerely,

Francis Jaman Phiri

INSTRUCTIONS

You are required to tick the appropriate response in the spaces provided. In other cases, write the answers in the spaces provided.

E.g. What is your current marital status?(1) Single [ ] (2) Married [√

Date …. /…. /…..

1. How old were you on your last birthday

   ……..

2. What is your sex?

   1) Male

   2) Female

3. What is your highest level of your education?

   1) Primary

   2) Secondary

   3) Tertiary

4. Are you able to read and write in any of the following languages?

   1) English

   2) Nyanja

   3) Bemba

   4) Tonga

   5) Lozi

   6) Other……..

5. Are you in employment?

   1) Yes

   2) No

6. If yes, what do you do?

   ……..

7. Which media are your sources of information in your area?

   1) A phone

   2) A TV

   3) A Radio

4) Internet (at home or a café nearby)

5) Bill boards

6) Campaign van

7) Community meetings

8) Letters

9) Other (specify)……..

8. Are you aware of the Maiteneke Sewer network Project going on in your area?

1) Yes

2) No

9. If yes, what do you know about the project?

……

……

……

……

10. Has LSWC contacted you using any means of communication concerning the Maiteneke sewer network project?

1) Yes

2) No

11. If yes, what means of communication did LWSC use?

……

……

……

……

12. Was the message clear enough for all age groups to understand?

1)Yes

2)No

13. If no, what could have been done better?

……

……

……

14. If you answered Q 10, for how long was the communication sustained?

1) Once
2) Weeks
3) Months
4) A year+

15. Were the means of communication used effective?

1) Yes
2) No

16. If yes to Q11, explain your answer?

……

……

……

……

17. If No to Q11, list the other means of communication apart from the ones used that LWSC could have used?

……

……

……

……

18. Why do you think these could have worked?

……

……

…….

19. If no to Q 14, explain your answer?

……

……

……

……..

20. What would you recommend to LWSC. That could improve communication between LWSC and the Maiteneke community?

……

……

……

Thank you for your cooperation

APPENDIX II: PROMPT LIST FOR FGDs

1. Are you aware of the Maiteneke Sewer Rehabilitation Project which took place in your area?
2. What do you know about the project?
3. Were you contacted by LWSC before the start of the project?
4. What means of communication did they use?
5. Were the means of communication used effective?
6. For how long was the communication sustained?
7. Was the message clear for all age groups to understand?
8. If no, what could have been done better?
9. Are there any other means of communication apart from the ones used by LWSC which you think could have been used?
10. What are they? List them.
11. Why do you think these could have worked?
12. Did you participate in the project?
13. What was your role in the project?
14. Were you satisfied with your level of participation in the project?
15. What would you recommend to LWSC that could improve communication between them and Maiteneke community?

Thank you for being part of the study.

APPENDIX III

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Age	92	53	16	69	35.34	15.437
Valid N (listwise)	92					

Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	52	52.0	52.5	52.5
	female	47	47.0	47.5	100.0
	Total	99	99.0	100.0	
Missing	System	1	1.0		
Total		100	100.0		

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	primary	19	19.0	19.2	19.2
	secondary	57	57.0	57.6	76.8
	tertiary	23	23.0	23.2	100.0
	Total	99	99.0	100.0	
Missing	System	1	1.0		
Total		100	100.0		

read_write_English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	85	85.0	85.0	85.0
	no	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

read_write_Nyanja

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	49	49.0	49.0	49.0
	no	51	51.0	51.0	100.0
	Total	100	100.0	100.0	

read_write_bemba

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	33	33.0	33.0	33.0
	no	67	67.0	67.0	100.0
	Total	100	100.0	100.0	

read_write_Tonga

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	4	4.0	4.0	4.0
	no	96	96.0	96.0	100.0
	Total	100	100.0	100.0	

read_write_Lozi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	4	4.0	4.0	4.0
	no	96	96.0	96.0	100.0
	Total	100	100.0	100.0	

Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	32	32.0	32.0	32.0
	no	68	68.0	68.0	100.0
	Total	100	100.0	100.0	

source_of_info_phone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	46	46.0	46.5	46.5
	no	53	53.0	53.5	100.0
	Total	99	99.0	100.0	
Missing	System	1	1.0		
Total		100	100.0		

source_of_info_tv

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	85	85.0	85.0	85.0
	No	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

source_of_info_radio

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	66	66.0	66.0	66.0
	No	34	34.0	34.0	100.0
	Total	100	100.0	100.0	

source_of_info_internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	21	21.0	21.0	21.0
	No	79	79.0	79.0	100.0
	Total	100	100.0	100.0	

source_of_info_billboards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	18	18.0	18.0	18.0
	No	82	82.0	82.0	100.0
	Total	100	100.0	100.0	

source_of_info_campaignVan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	11	11.0	11.0	11.0
	No	89	89.0	89.0	100.0
	Total	100	100.0	100.0	

source_of_info_communityMeetings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	13	13.0	13.0	13.0
	No	87	87.0	87.0	100.0
	Total	100	100.0	100.0	

source_of_info_letters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	14	14.0	14.0	14.0
	No	86	86.0	86.0	100.0
	Total	100	100.0	100.0	

aware_maiteneke_sewer_netwrok

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	91	91.0	92.9	92.9
	no	7	7.0	7.1	100.0
	Total	98	98.0	100.0	
Missing	System	2	2.0		
Total		100	100.0		

LWSC_contacted_over_maiteneke_sewer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	74	74.0	74.7	74.7
	no	25	25.0	25.3	100.0
	Total	99	99.0	100.0	
Missing	System	1	1.0		
Total		100	100.0		

message_clear_for_all_age Groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	58	58.0	62.4	62.4
	no	35	35.0	37.6	100.0
	Total	93	93.0	100.0	
Missing	System	7	7.0		
Total		100	100.0		

how_long_was_communication_sustained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	once	30	30.0	36.6	36.6
	weeks	30	30.0	36.6	73.2
	months	20	20.0	24.4	97.6
	a year+	2	2.0	2.4	100.0
	Total	82	82.0	100.0	
Missing	System	18	18.0		
Total		100	100.0		

were_the_means_of_communication_effective

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	47.0	51.6	51.6
	No	44	44.0	48.4	100.0
	Total	91	91.0	100.0	
Missing	System	9	9.0		
Total		100	100.0		