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Impact of informal sector growth on water, sanitation and hygiene service provision: The Case of Norton Town Council in Zimbabwe

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DECLARATION

I, Sylvia Shekede, declare that this study is based on my own work. It is submitted for the degree of Master of Arts in Development Studies (MADS) at the Midlands University, Zimbabwe. This research has not been submitted before for any Degree for examination at any other University. Results, analyses and conclusions articulated in this study do not reflect the opinions of the Midlands State University, Department of Development Studies or the MADS Examination Committee.

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ACRONYMS

AfDB	African Development Bank
CSOs	Civil Society Organisations
EHTs	Environmental Health Technicians
ESAP	Economic Structural Adjustment Programme
GoZ	Government of Zimbabwe
IMF	International Monetary Fund
MICS	Multi Indicator Cluster Survey
NGOs	Non-Governmental Organisations
NTC	Norton Town Council
SAPs	Structural Adjustment Programmes
UN	United Nations
UNCT	United Nations Country Team
UNICEF	United Nations Children Fund
WASH	Water Sanitation and Hygiene
WHO	World Health Organisation
ZimStat	Zimbabwe National Statistics Agency

ABSTRACT

The informal sector has grown over years as people fail to get employment in the formal sector. In Zimbabwe, the sector is dominated by women and the majority of the people in the sector are aged 15 years to 30 years. Although the sector has made significant contributions to improving people`s livelihoods, the growth of the sector has impacted negatively on WASH service provision in urban areas as the existing WASH infrastructure was not designed to cater for these large numbers of people. More so, the WASH infrastructure is old, rusty and in most cases leaking resulting in poor service delivery across the majority of urban councils. The major challenges emanating from the growth of the informal sector in Norton, Zimbabwe include illegal dumping of solid waste, littering, blockage of water and sewer systems, pollution, vandalism of WASH infrastructure, non-payment of operating fees and poor hygiene practices. There is need for Norton Town Council to review existing by-laws to ensure guidelines for the regulation of the operations of informal sector are clearly defined. Furthermore, Norton Town Council should take into account the WASH needs of the informal sector in town planning for sustainable development.

CHAPTER 1: INTRODUCTION

1.1.Introduction

When Zimbabwe attained its independence in 1980, the economy experienced a period of steady growth. However, with the Structural adjustment programmes (SAPs) adopted by the government in the 1990s, many people were left out of employment due to retrenchments and company closures. In addition, the effects of drought contributed to people migrating from the rural to urban areas (Sigauke, 2002). These two developments of SAPs coupled with the effects of drought resulted in people being pushed into the informal economy in urban areas. This research looks at how the informal sector growth is impacting on water, sanitation and hygiene (WASH) service provision in Norton town as the existing WASH had not been designed to cater for the subsequent population growth.

1.2.Overview of the informal sector growth and water, sanitation and hygiene services

Many African countries have experienced economic growth over the recent years. However, the growth has not created meaningful jobs as evidenced by high levels of unemployment amongst the youth and the adult population. The high levels of unemployment have left these categories of people with limited options resulting in most of them having to turn to the informal sector for survival. The informal sector is a type of business entities which are not legally recognised as they do not follow the proper registration procedures (Nyatanga 2000). The sector is characterized by small enterprise operators selling goods and services but do not pay taxes to government from the proceeds generated. It should be noted at this point that the informal sector is a growing sector in

the urban areas not only around Zimbabwe but in the rest of Africa as the options for survival are becoming limited.

Attempts to approximate the size of the informal sector in Africa has been faced with challenges as there are no mechanisms to document and measure the size of the sector. Despite these challenges, Zimbabwe has made strides towards estimating the size of the informal sector. The labour force survey conducted by Zimbabwe National Statistics Agency (Zimstat) in 2014 estimated the labour force in the informal sector across the ten provinces. The survey report suggests that the sector is huge, and growing very rapidly as retrenchments increase and formal employment slides. The growth of the informal sector can be attributed to a number of factors including the Structural Adjustment Programmes (SAPs) recommended by the World Bank and the IMF in the 1990s.

Under the Economic Structural Adjustment Programme (ESAP), a number of prescriptions such as the devaluation of local currencies, economic deregulation, reduction in government expenditure, trade liberalization, privatization, removal of subsidies, and price controls were implemented. These conditionalities had serious consequences as the country was faced with massive retrenchments and closure of industries resulting in most people turning to the informal sector (Sachikonye 1997). Thus the growth of the informal sector in Zimbabwe could be attributed to the adoption of the ESAP. In addition, the continued decline in Zimbabwe's economic performance especially in the post 2000 era further spurred the growth of the informal sector due to the shrinking economy accompanied by retrenchments in the formal sector.

Despite the importance of the informal sector role in the economy through increasing and enhancing entrepreneurial activity, it has been observed that the majority of the informal traders conduct their businesses at places not originally intended for trading purposes to avoid paying operators' fees to the Local Authorities. In worst case scenarios, the informal traders conduct their business on pavements whilst others operate from the streets posing danger to pedestrians and motorists as they try to avoid them. Moreover, the informal sector is associated with weak employment conditions and increased poverty as the wages are low. The situation is further worsened by the fact that the business persons operating in the sector do not offer retirement pensions and other social benefits thus contribute to increased poverty.

1.3. Background to the study

In many parts of the world, population growth and urbanisation are posing serious challenges to governments in relation to water, sanitation and hygiene service provision. The UN HABITAT (2010) report on the state of water and sanitation in the cities around the world found that distribution systems in most of the cities in the developing world were not adequate. Torrey (2004) states that the provision of safe drinking water and basic sanitation were among the most critical challenges towards achieving sustainable development in urban areas as the existing infrastructure did not meet the demands of the growing population. As a result, access to water, sanitation and hygiene (WASH) remains critical to meeting not only the specific water and sanitation Sustainable Development Goals, but is also essential for combating diseases, tackling hunger, achieving universal primary education, gender equality and reducing child mortality and poverty.

Safe drinking water is a basic necessity for good health (Wolf et al 2014). In addition, unsafe water can be a significant carrier of water borne diseases such as cholera and typhoid (UNICEF 2012). Furthermore, inadequate disposal of human excreta and personal hygiene are associated with a range of diseases including diarrhoeal diseases. Thus the provision of improved sanitation services can reduce diarrheal disease by more than a third (Caincross et al 2010). It is also important to note that hand washing with water and soap are amongst the most cost effective health interventions to reduce incidences of diarrhoeal diseases. Statistics have shown that 88% of diarrhoeal diseases are attributed to unsafe water supply, inadequate sanitation and hygiene. Improved sanitation reduces diarrhoeal by 32% (WHO 2004, page 86). Again these diseases are likely to be chronic in many ways and have the potential to reach epidemic proportions in the absence of adequate waste disposal management systems.

On the policy and institutional front, Zimbabwe does not have one document that provides a framework for the provision of WASH. The Constitution of Zimbabwe amendment (Number 20) provides for inter alia rights of youth, women, elderly, communities' participation, the devolution of powers and responsibilities to provincial, metropolitan and local authorities. Section 73 of the Constitution focuses on environmental rights whilst Section 77 focuses on the Right to safe, clean and portable water. In addition, the management of urban areas in Zimbabwe is governed by the Urban Councils Act Chapter 29:15. Section 168-181 provides for the powers and functions of Councils with respect to sewage and drainage and section 183-187 focuses on water. The Environmental Management Act (Chapter 20:27) empowers the Environmental Management Agency to formulate quality standards on water, sanitation and waste management. The Zimbabwe Agenda for Sustainable Socio Economic Transformation (Zim Asset) has four strategic clusters

out of which two are linked to WASH service delivery i.e. the Social Services and Poverty Eradication and Infrastructure and Utilities. At international level, Goal 6 of the Sustainable Development Goals points to the need to ensure availability and sustainable management of water and sanitation for all. The institutional framework is discussed in detail under the literature review section in Chapter 2, section 2.5.

In Zimbabwe, the year 2000 saw the country fall into arrears in its debt obligations to the donor community. This economic crisis resulted in most of the international assistance programmes being withdrawn from the country. The donor assistance that was withdrawn included the support which had usually been channeled towards WASH programmes in both rural and urban areas (African Development 2011). Furthermore, the decline in the economy coupled with the collapse of the public sector investment meant there were no new investments in WASH, thus exerting pressure on the aging infrastructure which was not being replaced. Added to these challenges, poor revenue collection due to the general economic decline compounded by a number of droughts has negatively impacted on WASH service provision.

These challenges have resulted in Local Authorities failure to repair or maintain an already aging infrastructure leading to a severe decline in water and sanitation services. Smith (2012) argues that the provision of sufficient affordable water, safe accessible sanitation and ecologically efficient waste management are crucial to the health and wellbeing of urban city inhabitants. The deterioration in WASH services in Zimbabwe saw the country being affected by the nationwide cholera outbreak in 2008 which resulted in more than 100,000 cases of cholera and about 4,300

deaths (UNCT &GoZ 2014, page 80). The cholera spread to most districts across the country and neighbouring states.

A review of the Millennium Development Goals conducted by the United Nations in June 2015 revealed that between 1990 and 2015, the proportion of the global population using an improved drinking water source had increased from 76% to 91% (UN Report 2015, page 58), surpassing the MDG target which was met in 2010. Additionally, the proportion of people without access to improved drinking water had been cut by half in Eastern Asia, Latin America & the Caribbean, South Eastern Asia and Western Asia. However, Sub Saharan Africa fell short of the target. Between the same periods, the proportion of the global population using an improved sanitation facility increased from 54% to 68% (UN Report 2015, page 58) with Sub Saharan Africa falling short of this target as the majority were still practising open defecation. In Zimbabwe, access to urban water supply decreased from 97% in 1990 to 60% in 2008, whilst access to urban sanitation decreased from 99% in 1990 to 40% in 2008 (National Water Policy 2012, page 14). Solid waste management is also amongst the WASH challenges facing urban local authorities across the country as they still practice the traditional solid waste management system of disposing solid waste at dumpsites.

As already mentioned a number of local authorities in Zimbabwe are facing challenges in providing water and sanitation services to formal settlements and formal sector. It is the contention of this study that if the local authorities are failing to provide WASH services to the formal sectors, there is high likelihood that the informal sector might be neglected. However, there is paucity of literature not only on the number of people involved in the informal sector but on whether the sector is accessing WASH services. In this regard, it is important to provide some statistics on the

informal sector as a first step towards understanding the size of the informal sector as well as assessing whether local authorities are able to provide WASH services to this sector.

The labour force survey conducted by Zimbabwe National Statistics Agency (ZimStat) in 2014 estimated that around 859 thousand of the working population aged 15 years and above was in the informal sector (ZimStat 2014 Labour force survey page 80). Of these 43% of males and 57% female operated on footpaths, streets or open spaces whilst 36.7 % male and 66.3 female operated at a market (ZimStat 2014 Labour force survey page 96). The majority of informal traders were engaged in manufacturing, wholesale & retail trade, repair of motor vehicles and bicycles, construction and transportation whilst some traders were classified as other service activity. Comparable data shows employment in the informal sector increased significantly from 566,833 people in 2011 to 859,060 in 2014 (ZimStat Labour Force Survey Fact Sheet 2014, page 4). Hence, not only is Zimbabwe's informal sector proportionally much bigger, but what is more worrying is that it is expanding at a very rapid rate due to high unemployment levels resulting from retrenchments and company closures. The same 2014 ZimStat Labour force survey fact sheet states that urban unemployment for the population aged 15 years and above rose from 26.1 % in 2011 to 29.5% in 2014 (page 3). As alluded to earlier, the increase in the unemployment rate of the 15 years and above age group translates to an increase in the numbers of people operating in the informal sector as they seek alternative sources of livelihood.

According to the Minister of Small and Medium Enterprises and Cooperative Development, 85% of the small to medium enterprises in Zimbabwe are not yet licensed by Local Authorities (The Business Herald, 22 February 2016, page B3) rendering them illegal in the face of the law. It is against this background that this study seeks to examine the extent to which the growth of the

population of informal traders impacted on water, sanitation and hygiene services in Katanga Township, Norton.

1.4.Statement of the problem

In Zimbabwe, literature on the informal sector growth in small towns is limited as studies have focused more on big cities. Again, the available literature substantially discusses the demand and supply of water, sanitation and hygiene services for the informal sector traders with minimal emphasis on how the informal sector growth impacts on existing water and sanitation infrastructure and related services. The labour force survey conducted by Zimbabwe National Statistics Agency (Zimstat) in 2014 suggested that the informal sector in Zimbabwe is huge, and growing very rapidly as retrenchments mount and formal employment slides. Specifically, employment in the informal sector increased significantly from 84.2% in 2011 to 94.5% in 2014 (ZimStat Labour Force Survey Fact Sheet 2014, page 3).

It is not just the size of the informal sector which is of concern, but the extent and speed of its growth which is putting a strain on existing water, sanitation and hygiene services. The failure to repair or maintain an already aging infrastructure has led to a severe decline in services across towns and cities in the country. The situation has been worsened by the shrinking revenue streams which have seen a reduction in salaries and an exodus of skilled staff. Norton Town Council has not been spared of these challenges. Despite the increasing role of the informal sector in the country, little research has been carried out to examine the extent of the informal sector growth as well as the extent to which local authorities are dealing with provision of WASH to this sector.

Thus this study focused on understanding the extent to which the growth of the informal sector is impacting on water, sanitation and hygiene services in Katanga Township, Norton.

1.5. Research aim

The aim of the research was to assess the impact of the increase in the number of people operating in the informal sector in Katanga Township on existing WASH infrastructure and related services provided by Norton Town Council.

1.6. Objectives

Broadly, the objectives of the study focused on three key areas of demand, supply and gaps in relation to WASH service provision. The specific objectives were:

- a) To establish causes of the growth of the informal sector in Norton
- b) To determine the WASH needs of the informal traders in Norton Town Council
- c) To establish the extent to which Norton Town Council was providing WASH services to the informal traders under its jurisdiction
- d) To determine the impact of the growing population of informal traders on WASH services.

1.7. Research questions

The following broad questions were developed to respond to the research aim and objectives of the study.

- What are the causes of the informal sector growth in Norton
- What WASH services do members of the informal sector expect from NTC
- What are the WASH services/options available to informal sector in Norton currently

- What are the gaps and how is the informal sector growth impacting on existing WASH services

1.8. Justification for the study

The study is significant in a number of ways as summarised in the sections below.

1.8.1. Local Government

The research is intended to assist the policy makers in Norton Town Council design policies to address the WASH needs of informal traders as indications are that this sector is growing rapidly. The policy makers could also glean some insights on how to devise a system where all informal traders make contributions in cash or kind towards the provision of WASH services for sustainability of the WASH interventions in the town.

1.8.2. Civil Society Organisations (CSOs)

Findings from the study will contribute to providing CSOs working in the WASH sector in Norton and other parts of the country with insights on the impacts of the informal sector growth on WASH service delivery. These findings will also be used as baseline information when designing programmes and for fundraising from prospective funding agencies.

1.8.3. The academic body

The material in the study will contribute to literature on the informal sector growth as it relates to WASH provision by urban local authorities across the country. This will add value to the body of evidence based knowledge as some of the literature available is based on desk studies. Furthermore, the study will add on to the intellectual property of the institution.

1.8.4. The Researcher

The study significantly contributed to improving the knowledge and understanding of the researcher on how the increase in the population of people in the informal sector is impacting on WASH service delivery. The study also enabled the researcher to partially fulfil the requirements to acquire a Masters Degree in Development Studies.

1.9. Operational Definitions

The term informal sector in this study refers to small business enterprises selling goods or offering services to communities in Norton. The main forms of businesses in this category in Norton are small scale manufacturing, selling of fish, clothes, vegetables and other agricultural produce, carpentry, tyre mending and transportation commonly referred to as ‘mushikashika’. These business ventures rely heavily on family labour and a few paid workers. In other words, the enterprises have low levels of economic and human capital and they operate on the basis of unstandardised employment laws (Suharto 2002). In addition, the business entities are small in nature and require basic skills which are usually acquired outside the formal education system (Mupedziswa 2001).

According to the WHO, WASH is the collective term for Water, Sanitation and Hygiene. Due to their interdependent nature, these three core issues are grouped together to represent a growing sector with each issue being dependent on the presence of the other. For example, without toilets, water sources become contaminated; without clean water, basic hygiene practices are not possible

Safety of drinking water is a growing concern in many parts of the world. Drinking water sources are increasingly under threat from contamination, which impacts on not only on the health of

children, but also on the economic, environmental and social development of communities and nations. Threats to drinking water quality include unsafe handling and storage at the household: water drawn from safe sources may be contaminated by the time it reaches and is ultimately consumed in households.

Sanitation is a comprehensive term and it means more than just toilets. Sanitation refers to the principles and practices relating to the safe disposal of human excreta and refuse as they impact on communities and the environment. It can be understood as interventions that reduce human exposure to diseases by providing a clean environment in which to live. It involves both behaviors and facilities, which work together to form a hygienic environment.

Hygiene refers to any structure that enhances positive practices such as hand washing facilities, refuse bins, latrines, and any such other structure. Education and communication are important components of a promoting hygiene, however education alone does not necessarily result in improved practices. Promoting behaviour change is a gradual process that involves working closely with communities, studying existing beliefs, defining motivation strategies, designing appropriate communication tools and finally, encouraging practical steps towards positive practices.

The other concepts used in the study and require defining are water supply system, sanitation services, solid waste management, open defaecation and infrastructure. Water supply system is a system for the collection, transmission, treatment, storage and distribution of water from source to consumers. Sanitation services refers to the principles and practices relating to the safe disposal of human excreta and refuse as they impact on communities and the environment. Solid waste

management refers to the collection, removal and disposal of garbage, refuse, hazardous and other solid wastes. Open defaecation refers to the indiscriminate disposal of human excreta whilst infrastructure refers to the basic physical systems of a place and includes sewage and water systems.

Whilst the above concepts are the major terms used in the study, it is also critical to define the other concepts used to analyse the effects of informal sector growth on WASH services such as accessibility, affordability, availability and quality. Accessibility implies an assessment as to whether water and sanitation facilities are within the physical reach and are accessible to the informal business operators. Affordability refers to an assessment as to whether communities in the informal sector are able to afford the costs (service charges). The availability of WASH services is another concept that can be used to assess access. Quality implies assessing whether the WASH services are safe for use. This involves assessing factors such as ‘is the water supplied of acceptable quality that does not pose a threat to human health?’ Similarly, on sanitation, the question is ‘are the sanitation services safe that is hygienically and technically?’

1.10. Structure of the research

The thesis consists of six chapters. Chapter 1 introduces the research and provides the background to the study. The chapter also states the statement of the problem to be addressed as well as the research objectives and questions which guided the research. Finally, the chapter defines key concepts. In Chapter 2, an analysis of the literature review and empirical studies related to the study are presented. This included an analysis of the legal framework governing WASH provision in Zimbabwe, journal articles as well as relevant research articles on the subject matter. The

chapter also looks at the gaps in literature and explains how this research will fill those gaps. Finally, the chapter explains the theoretical framework guiding the research. Chapter 3 gives a description of the study area and justifies why Katanga market was chosen. Chapter 3 also covers the research methodology employed in collecting data from the informal business entrepreneurs operating in Katanga Township as well as data collected from the Norton Town Council officials. Chapter 4 presents the findings and an analysis of the results and finally, Chapter 5 presents the general conclusions and recommendations

1.11. Conclusion

This chapter set the broad context of the research by giving an overview of the growth of the informal sector and how it impacted on WASH service provision. The background to the study and the problem statement were articulated. The parameters of the study were also explained through the overall aim and the objectives, which in turn informed the research questions. The structure and focus of the subsequent chapters were also discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter analysed literature on the impact of informal sector growth on WASH service delivery in urban areas in Zimbabwe. However, in Zimbabwe, literature on the informal sector growth in small towns is limited as studies have focused more on big cities. Again, the available literature substantially discusses the demand and supply of water, sanitation and hygiene services for the informal sector traders with minimal emphasis on how the informal sector growth impacts on existing water and sanitation services. Despite these challenges the literature review was conducted according to thematic areas as discussed in this chapter. The sources for this literature review mainly centred on scholarly journals, research reports, Acts of Parliament and World Bank and UN HABITAT reports as guided by the research objectives and research questions.

Over and above the pool of existing knowledge relevant to the study, the review also looked at the policy and institutional frameworks guiding the provision of water, sanitation and hygiene in the country. Such documents include the Constitution of Zimbabwe amendment (Number 20), the Urban Councils Act Chapter 29:15, the Water Act Chapter 20:24, the Public Health Act Chapter 15:09, the Environmental Management Act Chapter 20:27, the Zimbabwe Agenda for Sustainable Socio Economic Transformation and the Sustainable development Goals. Furthermore, the study reviewed similar studies carried out in other parts of the world as a way of broadening the understanding of the impact of informal sector growth on WASH service provision as it relates to other countries.

2.1.1. Positioning the literature review

According to Neuman (2011), conducting a literature review on any subject implies an acknowledgement that knowledge accumulates and that one may learn and build on what others have done in the past. Neuman (2011) further explains that a literature review's main aim is to demonstrate familiarity with existing knowledge and establish credibility on the process whilst in other instances literature review is conducted to help place a research project in context thereby demonstrating its relevance. Given the two different scenarios on the aims of conducting literature reviews, this study was more inclined to the latter intention of placing the research into context as defined by Neuman (2011).

2.1.2. Understanding the informal sector

Liimatainen (2002) observes that the term informal sector was first used in the reports on Ghana and Kenya prepared under the ILO World Employment Programme at the beginning of the 1970s. According to the International Labour Organisation (2000), the term informal sector refers to that segment of the labour market in the developing countries that has absorbed significant number of job seekers, mostly in self-employment. The term also refers to workers in very small production units. The activities in the informal sector are often characterised by low levels of capital, skills, access to organised markets and technology, low and unstable incomes and poor and unpredictable working conditions (ILO 2000). It should be noted that these informal activities are often outside the scope of official statistical enumeration and government regulations and they operate outside the formal systems of labour and social protection.

2.2. Origins and growth of the informal economy in Africa

During the colonial period, Africans were barred from venturing into the informal sector because of the colonial laws aimed at controlling indigenous business operations (Mitullah 2003, Nwaka, 2005). With the attainment of independence, the percent of people in the informal sector in African countries has significantly increased. Furthermore, a number of business entrepreneurs have entered the informal sector as alternative employment, especially since the beginning of the Structural Adjustment Programmes (SAPs) which resulted in the retrenchment of civil servants across Africa (Mitullah, 2003). In Nigeria the informal sector grew from 25% in the mid-1960s to 60% in the early 2000 (Nwaka 2005, page 3) whilst in Indonesia the sector grew from 64% in 1998 to 69% in 2002 (Suharto 2003, page 8).

Street vending has become a source of income and employment in Africa (Mitullah, 2003; Sibhat 2014). Mitullah (2003) study was conducted in six countries, namely Kenya, Cote d'ivoire, Ghana, Zimbabwe, Uganda and South Africa. According Mitullah (2003), vending provided an opportunity that minimised the impact of social exclusion for many urban residents. Sibhat (2014) concurred with Mitullah on the significant role of the informal sector in creating employment by further explaining that the majority of people become vendors because of the difficulty of entry into the formal sector. Sibhat (2014) brought out these arguments in the study on the Cause and Effect of Informal Sector in Addis Ababa, Ethiopia.

2.3. Origins and growth of the informal economy in Zimbabwe

In Zimbabwe the informal sector can be said to have emerged by default and not by design. This is because the colonial regime attempted to control the spread of the informal sector in urban areas by putting in place stringent measures which had an effect of making the sector a 'hidden' feature

of the economy (Brand et al 1993). Specifically, Brand et al (1993) note that the Town and Country Planning Act 1964, the Vagrancy Act 1960, the Urban Councils Act and the Vendors and Hawkers By laws 1973 were some of the pieces of legislation that were enacted to frustrate the growth of the informal sector activities. The Local Authorities were given the mandate to enforce these regulations and by laws. Through these pieces of legislation the informal sector grew unnoticed as activities carried out in this sector were deemed illegal.

The study by Munhande (2008) on the impact of Operation Restore Order on informal market provided a historical background on how the informal sector in Zimbabwe has become what it is in the post-colonial period, that is, from the late 1980s to-date. The study highlighted that Zimbabwe's informal economy was relatively small and accounted for less than 10% of the labour force at independence. During this period, Munhande (2008) concurred with Brand et al (1993) on the observation that the non-existence or in some cases the low percentages of people in the informal sector was due to the various laws and by-laws that prohibited the free movement of indigenous people, especially from rural to urban areas.

However, with deregulation after the attainment of independence and economic stagnation and decline, the informal sector share of employment grew to 20% by 1987, 27% by 1991, and jumped to an estimated 40% by 2004(Munhande 2008, page 3). It can thus be observed that the increase in the informal sector is negatively correlated with economic stagnation and decline which all results in the shrinking of the formal sector, resulting in more people being pushed out of the formal labour market. Left with no option, these jobless people are likely to seek or create jobs in the informal sector.

This rapid growth of the informal sector triggered a cleanup campaign called Operation Murambatsvina (Operation Clean up) employed by the Government of Zimbabwe in 2005 to destroy all unplanned structures in both the urban and rural growth points. Operation Murambatsvina began in Harare but quickly became a deliberate nationwide campaign which saw the destruction of what the government termed illegal vending sites, structures and other informal business premises and homes. The campaign resulted in the displacement of hundreds of people (UN HABITAT, 2005). All the backyard extensions and other makeshift accommodation and flea markets were destroyed in the guise of enforcing bylaws to stop all forms of 'illegal' activities in areas such as vending, illegal structures and illegal cultivation among others. The operation involved the bulldozing, smashing and burning of structures housing thousands of people. However the campaign did not totally achieve the intended results as informal settlements for both residential and informal trading resurfaced & continued to increase in urban areas (Tibaijuka, 2006).

Currently the informal sector is now the country's largest employer as the economy is failing to absorb many job seekers into formal employment. The share of Informal Employment to Total Employment increased from 84.2% in 2011 to 94.5% in 2014 (ZimStat 2014 Labour Force Survey fact sheet page 3). The existence of a government Ministry for Small to Medium Enterprises is a demonstration of the acknowledgment of the role played by the sector in creating livelihood opportunities for those people not able to penetrate the formal sector across the country.

2.4. Informal sector water, sanitation and hygiene (WASH) needs

The Institute for Human Rights and Business (2009) states that water and sanitation services are vital for the smooth operation of informal traders. The Institute added that water is needed for survival, maintenance of life, food production and for cleaning surroundings in which informal traders operate. They argue that limited access to WASH has a direct impact on the capability of informal traders to conduct their business as productive time is wasted looking for these services.

The Sphere Standards (2011) corroborates the importance of equitable access to WASH by defining the WASH needs of all people. The Sphere Standards (2011) state that people should have safe and equitable access to a sufficient quality of water for drinking, cooking and personal hygiene. On sanitation, the Sphere Standards (2011) states that the safe disposal of human excreta creates the first barrier to excreta related diseases. Provision of adequate toilets with running water for safe excreta disposal is therefore a major priority, and should be addressed with as much speed as the provision of water supply. In addition, the provision of appropriate facilities for defecation is essential for people`s dignity, safety, health and well-being.

In relation to hygiene, the Sphere Standards (2011) define hygiene promotion as the mix between the population`s knowledge, practices and resources which together enable risky hygiene behaviours to be avoided. The definition fits well with the aim of any water and sanitation programme on the promotion of good personal and environmental hygiene in order to protect health. On solid waste management, the Sphere Standards (2011) highlights the importance of safe disposal of solid waste. Uncollected and accumulating solid waste creates a depressing and ugly environment, discouraging efforts to improve other aspects of environmental health. Solid waste

often blocks drainage channels and leads to environmental health problems associated with stagnant and polluted surface water. It is against this background that the review of the informal sector WASH needs was done.

The provision of sufficient affordable water, safe accessible sanitation and ecologically efficient waste management is crucial to the health and well-being of urban population (Smith, 2012). Put differently, water is the essence of life and sanitation essential as it is directly linked to water and is also fundamental for human dignity. According to the International Water Association (2004), access to good, safe and reliable drinking water is one of the basic needs of human society.

An analysis of women`s right of access to water and sanitation and women`s work in the informal sector conducted in Chitungwiza by Moffat (2012) further confirms the WASH needs for informal traders. Moffat (2012) states that informal traders need water for various purposes including their hydration during work, washing vegetables, flushing toilets, hand washing, cooking and bathing among others. With regards to sanitation, (Moffat (2012) argues that access to functional toilets with running water is a necessity as informal traders do not have to resort to the bush system as a coping mechanism to relieve themselves. Although the study only focused on two markets in Chitungwiza, the findings did provide information relevant to this study in relation to the WASH needs of the informal traders in Zimbabwe.

2.5. Provision of WASH services to informal traders by Local Authorities

According to the World Bank (2005), the growth of the informal sector in the urban areas was putting a strain on WASH services as the existing infrastructure was not designed to meet the increased demand. The report gave an analysis of how the influx of people to Harare exerted

pressure on the Harare Municipality for the supply of amenities such as water and sewerage infrastructure. World Bank (2005) noted that although the report focused on the challenges faced by Harare Municipality, the challenges were similar to the ones faced by other urban Councils and that the only difference was the extent to which the challenge of population growth was impacting on WASH service delivery. The report also highlighted that the major challenges which constrained urban councils from providing adequate WASH services to the increasing populations in the areas under their jurisdiction included financial constraints, obsolete equipment and lack of coordinated political will.

The UN HABITAT (2010) report on the state of water and sanitation in the world's cities found that there was unequal distribution of WASH services in many cities in the developing world as the existing services typically served the upper and middle class neighborhoods and did not extend to the high density areas. The same report highlighted that the same high density areas which were not being serviced, were the ones that had the highest population density. Furthermore, the UN HABITAT (2010) gives projected increases in the number of urban populations in developing countries implies, highlighting that the urban councils will face serious challenges in meeting the infrastructure demands including WASH infrastructure. The research will build on these findings and narrow down the analysis to the impact of informal sector growth WASH service provision.

World Bank (2015) confirms that the urban councils are struggling to provide adequate WASH services. Water and sewer systems are on the verge of collapse, thus putting millions of people in danger of consuming contaminated water, including that from underground sources. Waste

management has also become a problem bedeviling urban councils as the majority are failing to provide solid waste collection and safe disposal services (World Bank, 2015).

The problem of water scarcity in urban areas in developing countries is a major concern. Water shortages impact negatively on personal hygiene as most people forego some basics such as washing clothes and bathing. School children are not spared as their hygiene is compromised. (Mukuhlani & Nyamupingidza 2014, Mapfumo & Madesha 2014).The decline in the quality of water delivered by urban councils are a potential disaster to the welfare of citizens. Water shortage has made basic sanitation to seem more of a luxury and a very stressful process, thus making it more difficult for residents to use the toilet in the event that there is no water to flush. Most if not all toilets in urban areas use the flush type of toilet which depends on the availability of consistent water supply to properly function. The failure to have reliable water supply from the urban councils force residents to find alternative means of relieving themselves especially at unhygienic places such as dumpsites (Mukuhlani & Nyamupingidza 2014, Moffat 2012).

The African Ministers Council on Water (AMCOW, 2011) Zimbabwe Country Status Overview report also discusses similar challenges facing urban local authorities in relation to WASH service provision. According to the report, the country is challenged with access to clean, safe and portable water due to aged infrastructure, rural urban migration, growth of informal sector, growing of informal settlements as well high levels of pollution of water sources. The report highlights that the challenging socioeconomic conditions in Zimbabwe significantly contributed to the decline in WASH coverage in both the rural and urban areas. The report is concluded by highlighting that failure to have continued investment to the WASH sector will entail an increase in more WASH

related deaths, illnesses, pollution of water sources and negative impacts on sustainable livelihoods resulting in more hardships for the vulnerable populations.

2.6. Impact of informal sector growth on WASH services in urban areas of Zimbabwe

As been alluded to earlier, comparable data shows that employment in the informal sector increased significantly from 566,833 people in 2011 to 859,060 in 2014 (ZimStat Labour Force Survey Fact Sheet 2014, page 4). The major challenges caused by population growth in urban areas include the decline in WASH services in terms of quality and coverage, increased open defecation rates and the inability of urban local authorities to cope with solid waste management (Njaya 2014; Muzondi 2014; Maja 2016).

A study by Njaya (2014) on the operations of street food vendors and their impact on sustainable urban life in high density suburbs of Harare, Zimbabwe highlighted that the majority of the street food vending sites in high density suburbs of Harare lacked potable water and proper facilities for cleaning dishes and waste disposal. Furthermore, most of the public toilets were not in working order forcing vendors to use toilets in shops and bars. Others used open spaces especially during the night. Inconvenient and unhygienic eating places were some of the infrastructural problems observed during the survey. Njaya (2014) also highlighted that uncollected refuse was another challenge faced by street food vendors and this had a negative impact on the environment and sustainable urban life.

Muzondi (2014) confirms the challenges identified by Njaya (2014) and broadens the analysis to focus on the WASH management systems in Harare. Muzondi (2014) highlighted that the negative effects caused by population growth included bursting of sewer pipes, persistent water shortages and piling up of un-collected garbage. The author added that conditions such as these lead to the

outbreak of water borne diseases like cholera, diarrhea, dysentery and typhoid. The key WASH challenges faced in urban areas are the decline in urban WASH services in terms of quality and coverage across all urban areas, the increase in open defaecation and the inability of urban local authorities to cope with solid waste management (Maja 2016; Njaya 2014; Muzondi 2014).

2.7. The Legal Framework for water sanitation and hygiene (WASH) in Zimbabwe

Zimbabwe is a signatory to a number of International and Regional Conventions and protocols on WASH. Article 8 (1) of the Vienna Declaration on the Right to Sustainable Development calls for access to resources such as water and sanitation as key to bringing sustainable development within a country. More so, under the International Covenant on Economic, Social and Cultural Rights (ICESCR) General Comment No. 15 (2002), Zimbabwe committed itself to making the provision to entitle everyone in Zimbabwe to sufficient, safe, physically accessible and affordable water for personal and domestic uses (National Water Policy, 2012). Zimbabwe also appended its signature to the UN Sustainable Development Goals whose Goal 6 is to ensure availability and sustainable management and sanitation and hygiene for all by 2030. However, the challenge in Zimbabwe is sanitation is not considered as a distinct right as is the case with water. Some of the arguments for not having sanitation as a standalone right are that it has been included in the broad definition of adequate standard of living (Pedley, 2010).

At continental level, Zimbabwe was part of the delegation to the Africa Union Summit of 2008 where commitments to accelerate the achievement of water and sanitation MDG goals in Africa were pronounced. This summit was followed by the Second Africa Conference on Sanitation and Hygiene AfriSan 2008 which resolved to put sanitation and hygiene at the top of Africa's

development agenda. Again, Zimbabwe is a signatory to the African Ministers Council on Water (AMCOW) which set out universal access to safe water and improved sanitation and hygiene by 2010 as one of its three targets. The African Charter on Human and People`s Rights recognises the right to food as a human right and further acknowledges the right to safe water as a pre-requisite to the realisation of the right to food.

On the policy and institutional front, Zimbabwe does not have one document that provides a framework for the provision of water, sanitation and hygiene. At national level, the Constitution of Zimbabwe (Amendment No. 20) Act 2013 provides for inter alia rights of youth, women, elderly, communities participation, the devolution of powers and responsibilities to provincial, metropolitan and local authorities. Section 73 of the Constitution of Zimbabwe focuses on environmental rights whilst Section 77 focuses on the Right to safe, clean and portable water. The Constitution asserts that every person has the right to an environment that is not harmful to their health or well-being.

The management of urban areas in Zimbabwe is governed by the Urban Councils Act Chapter 29:15. Section 168 – 181 of the Act provides for the powers and functions of Councils with respect to sewage and drainage. According to the Act, the urban councils should take measures necessary for the collection, conveyance, treatment and disposal of sewage or storm water. Section 183-187 outlines the powers of urban councils in relation to water supply. The Environmental Management Act (Chapter 20:27) empowers the Environmental Management Agency (EMA) to formulate quality standards on water, sanitation and waste management. The Public Health Act Chapter 15:9 states that it is the duty of a local authority to furnish residents with water and sanitation supplies in line with health requirements. The Zimbabwe Agenda for Sustainable Socio Economic

Transformation (Zim Asset) has four strategic clusters out of which two are linked to WASH service delivery. The two clusters are Social Services and Poverty Eradication and Infrastructure and Utilities.

Although the legal framework has provisions which safeguard access to water, sanitation and hygiene as basic human rights, urban councils are struggling to meet the demand for these services. The research analysed whether the failure to supply is due to population growth and the ageing infrastructure only or whether there are other structural factors associated with this problem.

2.8. Impact of informal sector growth on WASH services in Africa and Asia

The informal activities are a global phenomenon whose impacts on the environment have been studied mainly in Africa (Nwaka 2005, Ofori 2007, Maina 2010 Werchota, 2013, Muzondi 2014, Sibhat 2014), Asoka et al 2013) and Asia (Suharto 2003). These studies have assessed impacts of informal economic activities on various aspects of the environment. For instance Ofori 2007 observed that street economic enterprises resulted in littering, poor solid waste management and public and environmental health and safety risks in Accra Ghana. It was further noted that street trading activities tended to stretch the already limited capacities of city authorities to keep their cities clean resulting in poor environmental hygiene and sanitation practices and methods that expose the public to severe public health risks, particularly the spread of food borne diseases

The informal sector growth has been observed in a number of countries in the Africa Region and Asia (Suharto 2003, Nwaka 2005 and Maina 2010). Statistical information provided indicated that the informal sector was growing in countries such as Indonesia, Nairobi and Nigeria respectively. The informal sector grew from 64% in 1998 to 69% in 2002 in Indonesia, rose from 18,000 people

to 48,287 people over a period of five years in Haruma State, Nairobi whilst in Nigeria the informal sector constituted between 45% and 60% of the urban labor force in the early 2000s, up from about 25% in the mid-1960s. The studies highlighted the negative impact of the rise in the numbers of informal sector players on the environment.

In another study, Werchota 2013 highlighted the increasing urban crisis in Africa with a special focus on water supply, sanitation and demographic challenges in Kenya. Some of the key impacts emanating from the growth of the informal sector included the pollution of water bodies due to the dumping of toxic waste generated in the sector (Werchota 2013). In addition, the study highlighted the impacts of dumping of solid waste at undesignated as well as the increase in the practice open defaecation due to the inadequate toilets availability. All these impacts negatively affected not only the environment but also compromised the health sector.

Suharto (2003) described the different forms of trade in the informal sector in Bandung Metropolitan Region, Indonesia, which included retail trade, small scale manufacturing, construction and transportation. The study also highlighted that the high growth of rate of the sector which increased from 64% in 1998 to 69% in 2002 had negative effects on the environment. The continued expansion of the informal economy was bound to lead to a proliferation of worksites or an intensification in the use of informal economic locations which would breed and exacerbate environmental problems (Suharto, 2003).

Nwaka (2005) provided an account of how the informal sector has evolved in Nigeria over the last 50 years as well as a detailed analysis on how the informal sector growth impacted on WASH service delivery. The study also explored the extent to which government policies and programs

had facilitated or constrained the sector, and how informal sector enterprises and settlements could be upgraded and progressively integrated into the urban development mainstream. The study also presented historical material on the range and changing patterns of informal sector activities in a cross section of Nigerian towns and cities, to illustrate the policy biases against the sector in the colonial and early independence periods.

Nwaka (2005) indicated that the informal sector accounted for between 45% and 60% of the urban labor force in the early 2000s, up from about 25% in the mid-1960s. On water and sanitation, Nwaka (2005) highlighted that the informal traders depended on crowded and sometimes distant communal water taps, or drew water from wells, streams, or from water vendors. Pit latrines and buckets were still in use and people commonly defecated and urinated in the open or nearby bushes thereby contaminating water from exposure to human waste. On solid waste management, the author highlighted that large volumes of rubbish were left to litter the streets or to accumulate in open dumps where flies and other disease carrying insects and rodents multiplied.

The study by Ofori (2007) provided significant insights on the impact of informal economic units in Accra Ghana on WASH services. According to Ofori (2007), some of the adverse physical and environmental conditions associated with street economic enterprises included littering, poor solid waste management and public and environmental health and safety risks. Ofori (2007) added that street trading activities tended to stretch the already limited capacities of city authorities to keep their cities clean. Further, the street food vending industry is widely cited for poor environmental hygiene and sanitation practices and methods that expose the public to severe public health risks, particularly the spread of foodborne diseases.

Maina (2010) highlighted the impact of population growth on WASH service provision in Huruma Estate, Nairobi where population increased from 18,000 people to 48,287 people over a period of five years. The population increase impacted negatively on availability and accessibility of water and sanitation systems by the residents as the existing infrastructure had not been designed to cater for the increased population. Although the Huruma Council made efforts to expand its water piping system, this was still not adequate to fully satisfy the residents' water needs. Again, solid waste management was a challenge as there were no set areas for collecting and managing the waste resulting in residents dumping the waste in undesignated places. This resulted in an increase in cases of water borne diseases such as diarrhea, cholera, malaria and typhoid especially among children.

The study by Asoka et al (2013) on the effects of population growth on urban infrastructure in Nairobi Kenya was also found to be suitable to this research as the authors analysed how the population growth impacted on urban infrastructure. The also authors highlighted that the waves of rural-urban migration further compounded high urban unemployment cumulatively resulting in the growth of informal enterprises as the urban populations pursued various activities to earn a living. The authors further highlight that these developments have put insurmountable strain on the basic infrastructure including water supply, sanitation and solid waste management.

Sibhat (2014) gave background to the informal sector growth with focus on street vendors in Addis Ababa, Ethiopia. The majority of respondents in the study indicated they became vendors because of the difficulty of entry into the formal sector. Sibhat discussed the negative impact of street vending highlighting the pollution created as a result of garbage was being left on the streets. The

author also highlighted the unhygienic practices of street food vendors. It is interesting to note that the author went further to analyse how the unhygienic conditions can result in a decline of tourists thereby impacting on the country's GDP.

2.9. Key observations from Literature

A review of the above literature has shown that a number of studies have been carried out on the informal sector as well as the provision of WASH services to this sector and the following conclusions can be made:

In Zimbabwe, literature on the informal sector growth is available even though the studies have focused more on big cities. However, the available literature substantially discusses the demand and supply of WASH services to the informal sector with minimal emphasis on how the informal sector growth impacts on existing water and sanitation services. Doing such an analysis would assist in coming up with recommendations on how policy makers can incorporate the growing demands in urban planning for sustainable development.

Some of the studies have just assessed the WASH needs for the street vendors in detail but did not determine whether the existing WASH infrastructure were meeting the demands of the growing population of street vendors. Moreover, such studies have mostly focused on the rights to water and sanitation without analyzing how the unavailability of water and sanitation facilities was impacting the productivity of informal traders as more time was spent searching for water or going to the bush as the toilets did not have water flushing. Again, doing such an analysis would assist in coming up with recommendations on how policy makers can improve WASH service delivery as well come up with programmes that would ensure that informal traders not only demand to be

provided with WASH services, but that they take responsibility and support the delivery of those services.

Other studies mentioned that the increase in open defaecation was a result of the informal sector growth. However, the studies did not do an analysis on how the practice of using the bush system or defecating at dumpsites was impacting on the environment. Open defaecation in Zimbabwe currently stands at 33% (UNICEF 2011, page 21) hence an analysis of the magnitude of the problem in the cities where the studies were conducted would have been very useful as the studies would have come up with recommendations on how the local authorities and the informal traders themselves would have addressed those challenges.

In addition, some of the findings revealed that local authorities were not providing WASH services to the informal sector citing non-payment of operating fees by informal traders as the reason. However this is not always the case as some informal traders do pay operating fees regularly. An analysis of whether the impact of the informal sector growth on WASH service delivery in urban authorities where informal traders were paying a daily or monthly fee were different from those urban areas where the informal traders were not paying would have added value to the study. Such an analysis would have come up with recommendations to assist policy makers in urban local authorities institute mechanisms which would ensure that all informal traders pay the stipulated operating fees for sustainable development.

The other studies focused on one line of informal trade, for example, studies focused on either street food vending or flea markets without looking at a holistic picture of the different forms of trade that the informal traders are engaged. Such studies would have been richer had they looked at the other informal business ventures such as motor vehicle repairs, carpentry, tyre mending, hair

salons and agricultural produce vending among other forms of informal trade and analysed how these activities impacted on WASH services. This may be the reason why these articles are silent on hygiene issues at individual level as well as at places of operation. By doing such an analysis, the researchers would have come up with recommendations aimed at safeguarding the environment for sustainable development.

Furthermore, some of the studies did identify the negative effects of informal sector growth on WASH services. However, the researchers failed to provide statistical information which makes it difficult for the users of the research findings to appreciate the magnitude of the problem. By providing statistical data, the researchers would have shown the nature and extent of the problem of informal sector growth on WASH services.

In addition, some of the reviewed country reports looked at the impact of population growth on WASH services nationally without narrowing the studies to specific sectors such as the informal and formal sectors separately and analyse how the population growth impacted on WASH service delivery. Although the information was relevant to this study in as far as the identification of problems at national level, reducing the analysis to local authority level would have added value as recommendations targeting specific local authorities would have been developed.

On the other hand, other studies took a narrow view and analysed the impact of population growth on WASH services at household level without broadening the analysis to other sectors in the economy. By broadening the analysis to other sectors, the authors could have looked at the impact of population growth at public places where the majority of informal traders operate from. Other studies which analysed the WASH needs from a rights based perspective also failed to do an analysis of how the inadequacy of WASH services failed to address the special needs of other

groups. The studies were silent on issues such as menstrual hygiene which are pertinent issues of concern to women.

Although the legal framework has provisions which safeguard access to water, sanitation and hygiene as a basic human right, urban councils are struggling to meet the demand for these services. The research will analyse whether the failure to supply is due to population growth and the aging infrastructure only or whether there are other structural factors associated with this problem

2.10.Theoretical framework

The informal sector has grown to become a meaningful source of livelihood in Zimbabwe and the rest of Africa (Lange 2003). As the informal business enterprises in Norton are engaged in different economic activities to earn a living, the research will be guided by the Classical Theoretical perspectives. In analysing the impact of the informal sector growth on WASH service provision at Katanga market in Norton, the research will apply the social action theory founded by Max Weber. Weber argues that all human action is directed by meanings. He identified various types of action that are distinguished by the meanings on which they are based. For Weber, therefore, society is created through social interaction and is not something that is “naturally given”. To this end, interaction involves the conscious behaviour of thinking and reflective individuals. People, in effect, make choices about their lives, their group memberships and so forth and these are neither pre-determined nor pre-destined.

The study was inclined to the traditional action which is premised on the belief that people`s actions are based on established custom and that people act in a certain way because of built-in habits. In order to understand why the growth of the informal sector was impacting on WASH

service provision in Norton, the field study enabled the researcher to understand the behaviour of the informal traders as well as the motive behind their actions.

Additionally, the Functionalist Theory will also be applied. The theory claims that society can be studied the same way that the human body can be studied, that is, analysing what specific systems are working or not working, diagnosing problems, and devising solutions to restore balance. The research will apply this theory by exploring options to be considered by Norton Town Council in addressing the WASH challenges brought about by the growing numbers of informal traders in the town. Furthermore, the research will explore the potential for forging closer links between local authorities and informal traders in WASH service provision.

2.11. Conceptual framework

By definition, a conceptual framework is an analytical tool with several variations and contexts used to organise ideas. In conducting the analysis on how the growing population of informal traders at Katanga market, Norton was impacting on the existing WASH services, the discussions evolved around the 3 pillars of sustainability as shown in Figure 1.

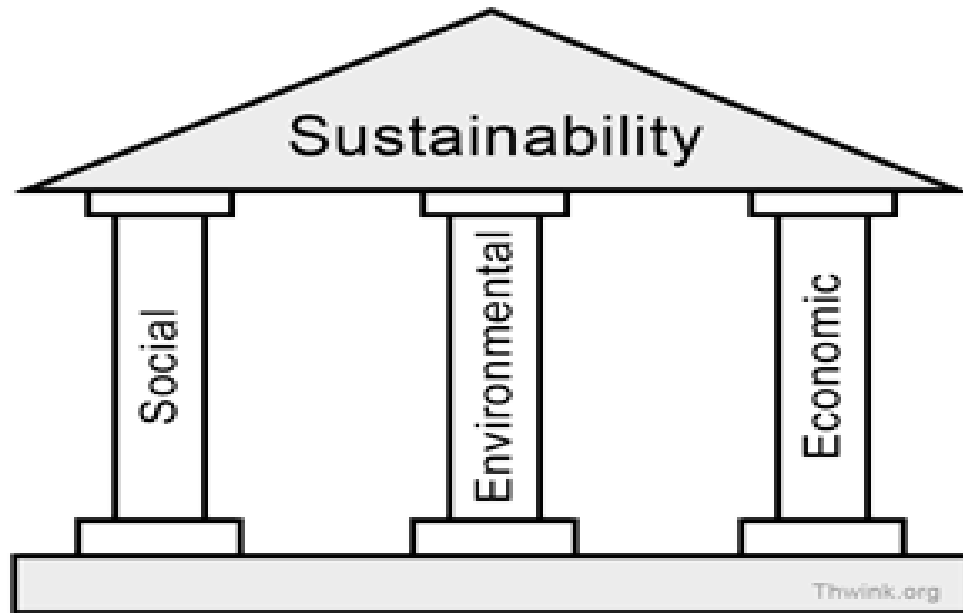


Figure 1: Three Pillars of Sustainability: Source: www.thwink.org downloaded 15/2/2016 at 6.45pm

Under the social pillar, the researcher discussed the water, sanitation and hygiene needs of the informal business enterprises operating in Katanga, Norton. The research also looked at the reasons why these people chose to operate in the informal sector. On the same token, the economic pillar discussed the different economic activities that the informal business enterprises are engaged in whilst at the same time analysing how they impacted on WASH services being provided by Norton Town Council. Under the environmental pillar the research examined the extent to which the socio-economic activities of the informal traders impacted on water, sanitation (including solid waste) and hygiene services.

More importantly, the sustainability approach explains that if any one of the pillars is weak, then the system as a whole is unsustainable. However, in the context of this research, the environmental

sustainability pillar was seen as the most important pillar since the focus was on the impact of informal sector growth on environmental issues (water, solid waste, sewerage disposal).

2.12.Conclusion

The chapter reviewed results of previous researches relevant to the study. Only credible sources of literature were reviewed. The sources for this literature review mainly centred on scholarly journals, research reports, Acts of Parliament and World Bank and UN HABITAT reports. The three objectives of the study outlined in section 1.6 Chapter 1 guided the literature review. Key findings related to the study were summarised and a critique of what was left out by the previous researchers was done, at the same time indicating how the study will fill the gaps. The literature review was presented according to thematic areas and. The theoretical and conceptual frameworks guiding the research were also explained.

CHAPTER 3: METHODOLOGY

3.1. Introduction

This chapter gives an outline of the study area, the research design, the sampling techniques, the research instruments and the data analytical framework used. It should be noted at this point that the research methodology adopted depends on the available resources and the time frame.

3.2. Study area

The research was conducted in Katanga Township in Norton. Norton is situated 40 km to the west of Harare and was established in 1935 as a railway siding for farmers. Plate 1 shows the location of Katanga suburb within Norton. Katanga suburb is strategically located and the road network to other suburbs in the town is good. This makes it attractive for prospective business to want to operate at Katanga market.

Norton was chosen out of all the towns across the country as the researcher works for an International NGO which has been implementing a WASH programme in Norton for the past six years and has been observing the growth of the informal sector in the town. In addition, Norton was chosen as the researcher's intention was to generate a body of empirical evidence which would add value to the work of the organisation as well as provide NTC policy makers with evidence based information to inform policy decisions. Given the size of the informal sector in Norton Town, Katanga market was chosen for the research as it is situated in one of the oldest high density suburbs in the town. Katanga market also has the highest number of informal traders compared to other markets in other suburbs in Norton. It would have been prudent to widen the research to other urban local authorities in Zimbabwe and compare the magnitude of impact of the informal

sector growth on WASH service provision, however this was not possible due to a number of limitations including time and costs.

According to the 2012 Census, the population of Norton is estimated at 67,591 (32 382 males, 35 209 females). With the closure of the big companies such as Hunyani Pulp & Paper and other industries in the town, the majority of the economically active population have become unemployed with some operating informal businesses in the town. The Norton Town Council WASH strategic plan 2014-2019, shows that only 60% of households have access to water at household level and 65% are connected to the sewer line.

Katanga market comprises of four areas:

- i. Area where Norton Town Council is providing legal market stalls. These are vegetable vendors, flea markets, small hardwares, sadza canteens, commuter omnibus operators commonly known as kombis
- ii. Area where informal traders have been allowed to put up their make-shift stalls. The informal traders include those who deal in second hand clothes, mobile phone services, live chicken sales, fruits and vegetables, airtime, tyre mending, barber shop and car wash
- iii. A commercial durawalled area allocated to informal traders where they have constructed own structures. These mainly comprise of traders hardware, welding and steel works, carpentry, grocery and lastly,
- iv. The area referred to as ‘Speedy’ section which comprises informal traders not registered by Norton Town Council. Traders in this section are not keen to pay for licences and hence the name ‘Speedy’ which characterises their action of running away from Municipal police

and Zimbabwe Republic Police. These traders mostly sell fish (fresh and dried), chicken cuts, vegetables, compact disks and memory cards. The small taxis known as ‘mushikashika’ are also found in this category. Some of the business activities in this area are deemed illegal on health grounds. As a result, NTC has not been issuing operating licences to people selling fish and chicken cuts in the open.

Norton Town Council estimated all these four categories of informal traders to be around 5,000 people. Out of these 3, 250 are registered with NTC Housing department. However, according to NTC, only 20% of the registered informal traders are paying their trading licenses.

3.3. Research Philosophy

The research philosophy or paradigm defines how knowledge is created either through structured or unstructured method. The philosophy also describes what can be studied and how to study it (research design), with what tools and what standards to use in judging the quality of research. This research used the mixed research method as will be discussed in detail under the research design. The ontological assumptions of reality that informed the research are positivism (quantitative research) and naturalist (qualitative research). To this end, research questions that are amenable to quantitative research and those that address qualitative issues were developed. In addition, both structured and unstructured data collection instruments were used.

3.4. Research design

Different scholars have different definitions on what the research design entails. Luck and Rubin (2000) described the research design as the research approach or strategy adopted for a particular project. In addition, the two authors further explained that the research design pertains to how a

research is planned. Saunders (2000) gives a definition almost similar to Luck and Rubin (2000) by defining a research design as a general plan of how a researcher goes about answering the research questions. Burns and Groove (2003) defines the research design as a blue print for conducting a study with a maximum control over factors that may interfere with the validity of the findings. Bleikie (2000) describes research design as a process that links research questions, empirical data and research conclusions. In addition Bleikie (2000) explains the most common types of research designs as social surveys, experiments and field research. This research uses the field research methodology which by definition is any activity aimed at collecting primary data using methods such as face to face interviews and observation.

The research design for my study was guided by the three elements of enquiry as described by Creswell (2002). According to Creswell (2002), the first step in any analysis is to assess the existing knowledge claims that are of relevance to the study. On this step, I conducted a desk review of existing literature relevant to my study. The second element considers the theoretical perspective and on this step, I looked for a theory or approach which suited my study. On the theoretical framework, Max Weber social action theory was found to be relevant to the study. The third element involves describing the strategy or plan of action and at this stage I found the field study approach to be appropriate for my study as I needed to collect first-hand information from the informal traders and NTC staff. The fourth element identifies appropriate methods for data collection and analysis. The data collection methods I used are explained in section 3.5 whilst the data collection instruments are explained in section 3.6. In my study, objectivism informed the research as I strongly believe the issues being analysed needed to be tackled from an open mind and not a situation where I would bring in my subjective thinking.

On the research philosophy, study employed the mixed research method. Mixed research is defined by Creswell (2003) as a method whereby the researcher collects, analyses and integrates both qualitative and quantitative data in a single study. The purpose of conducting quantitative research is to enable the researcher separate issues so that they can be counted and shown statistically to remove factors that may distract them from the intention of the research (Hopkins, 2002). In my study, quantitative data was collected using structured questions with predetermined answers to ensure standardisation of responses.

In order to be able to gather more data and substantiate the responses from the quantitative method, the research employed the qualitative method. By definition, qualitative research method is a method of enquiry used to understand a social or human problem from numerous viewpoints (Denzin et al 2005). By using this method, attitudes, perceptions and knowledge of both the Norton Town Council staff and informal business entrepreneurs with regards the impact of the informal sector growth on WASH service delivery were assessed. Qualitative data was collected using unstructured questions, hence open ended questions were asked. During the interviews, the researcher asked probing questions which resulted in the collection of detailed information.

Using both qualitative and quantitative enabled me to get a broader perspective on the overall issue as I managed to gather more data as well as get different answers through using the mixed method.

3.4.1. Research population

Parahoo (1997) defines population as the total number of units from which data can be collected such as individuals, artifacts, events or organisations. In my study, the population is defined as all

the elements that met the criteria for inclusion in the study. The criterion used for the identification of respondents for inclusion in the study were:

- informal traders registered and paying their operating licences to NTC
- informal traders operating at Katanga market, Norton
- Norton Town Council staff providing WASH services to informal traders at Katanga market

3.4.2. Sampling

Burns & Groove (2003) refer to sampling as a process of selecting a group of people, events or behaviour with which to conduct a study. Polit (2001) defines a sample as a proportion of a population and adds that the portion of people selected represents the whole population. Fraenkel and Wallen (2001) emphasise that time and budgetary constraints prevents the coverage of the entire population hence the need to focus on sample populations. The sample for this study was carefully selected to ensure that the findings from the research could be generalised to the different categories of informal business entrepreneurs operating at Katanga market, Norton.

3.4.2.1 Sampling method

There is a wide range of sampling methods a researcher can use in conducting a research study. However, the key question that guides the researcher is how representative is the sample in relation to the target group. Sampling methods are classified as probability or non-probability. Probability sampling gives every person an opportunity to participate in a study and the methods include random, systematic and stratified sampling techniques. On the other hand, non-probability

sampling implies respondents are selected in non-random ways and the methods include convenience, judgement, quota and snowball sampling techniques.

The stratified sampling method was used for informal traders and these were clustered according to the informal businesses they were engaged in. Examples of the strata were flea market operators, sell of agriculture produce, tyre mending, transport (kombis) among others. The study targeted informal traders who were paying the operating licenses to NTC. As alluded to in section 3.2, statistics obtained from NTC, showed that a total of 650 informal traders at Katanga market were registered with the Housing and Social Services department and were paying trading licences. Out of these 650 informal traders, 10% of this population was targeted and divided into different strata based on the type of informal business as shown in the table below:

Table 1: Type of informal businesses and number of targeted respondents

Type of informal business	Number of informal traders registered with NTC and paying operating licences	Number of respondents targeted
Vegetable vendors and other agricultural products	90	9
Carpentry	40	4
Flea markets	100	10
Sale of live chickens	50	5
Sadza canteens	60	6
Tyre mending & sale of second tyres	40	4

Hardware	60	6
Sale of mobile phones and airtime	60	6
Cycle repair	30	3
Sale of fruits	30	3
Car wash	30	3
Transport operators (kombis)	30	3
Hair salons	30	3
Total	650	65

Source: NTC Register of informal traders operating at Katanga market, March 2016


As shown in Table 1 above, 10% of the population within each strata were selected thus bringing the total of the informal traders interviewed to 65 respondents. In identifying the 65 respondents, the systematic random (quasi- random) sampling technique was used. The first respondent was randomly selected within a strata and all subsequent the subsequent respondents were chosen at a constant sampling interval of picking the 10th person within the strata.

Purposive sampling (non-random sampling) was also used in this study. Purposive sampling was used in identifying and selecting Norton Town Council staff whose duties and responsibilities included provision of WASH services to informal business entrepreneurs operating at Katanga market. These included the Town Engineer, staff from the Housing and Social services department and those under the Health department. The researcher used expert judgement in selecting the participants. The selection process involved handpicking individual respondents based on the knowledge they had on the area of study as well as their positions in NTC.

3.5. Data collection methods

Data collection is one of the critical components in conducting a research. Data collection involved collecting and assessing information on targeted variables in an established systematic fashion thereby enabling one to answer relevant questions. The overall goal of data collection was to capture valuable information which translates to rich data analysis and allowed the building of a convincing and credible answer to questions that have been asked. Different methods of data collection were used and these included field data collection, desk study, interviews and direct observations. Table 2 below shows the sequencing on how I conducted the research.

Table 2: Sequencing of the research:

Literature/Desk review	Interviews with informal traders	Interviews with NTC staff	Observation of
Journals, research reports, Acts of Parliament and World Bank and UN HABITAT reports	Demographic information, WASH needs, WASH services provided by NTC, impact of informal sector growth on WASH and related services	Trends in growth of informal sector, WASH services provided by NTC, impact of informal sector growth on WASH and related services	WASH services available, behaviour of informal traders and how it impacted on WASH services
			

3.5.1. Desk study

In this study desktop study was carried out in order to review existing literature on informal sector growth and its impact on WASH service in Zimbabwe and in other parts of the World. Specifically, literature review was undertaken to identify knowledge gaps through an evaluation of both published and unpublished literature. A review of journal articles, legal frameworks governing the WASH sector as well as studies by other researchers was also conducted.

3.5.2. Interviews

Interviews are a popular and widely used means of collecting qualitative data from people with knowledge on the relevant subject (Burns 1999). In-depth interviews were conducted with Norton Town Council staff to get first-hand information from staff with knowledge on the impact of informal sector growth on WASH service provision. Key informant interviews were also conducted with informal business traders to get detailed information. Interview guides with unstructured/open ended questions were developed to be able to get detailed understanding of WASH issues. This method was adopted as it is not too rigid.

During the interviews, I was able to probe further thereby collecting more data in a relatively easy and inexpensive way. The respondents were also given an opportunity to seek clarification on issues being discussed which provided an opportunity to build a relationship between the researcher and the respondents. This process also generated interest and raised awareness on the topical issues under discussion. Initially, the research had planned to use a tape recorder, however had to change the approach to taking notes as some of the officials were not comfortable in being recorded.

The guides used during the key informant interviews collected information on the size of the informal sector in Katanga, the trends in informal sector growth, a description of how the informal sector growth was impacting on WASH service provision as well as the recommendations. Key informants from Norton Town Council were the Acting Town Engineer, staff from the Housing and Community Services department as well as staff from the Health department. The documents such as the Acts were also used to validate the information provided by the respondents.

3.5.3. Observation

Marshall and Rossman (1989) define observation as the systematic description of events, behaviours and artifacts in the social setting chosen for study. Observation provides the context of the development of sampling guidelines and interview guides. For this study, I observed the informal business operators as they were conducting their business and how their forms of businesses were impacting on existing WASH services. Observations mostly centred on aspects such as use of water, solid waste disposal, disposal of human excreta and basic hygiene practices such as hand washing. This approach provided another angle of data collection through observing non-verbal behaviours and not to rely on what was said by the respondents to the research. The observation method also provided a better understanding of the context.

3.6. Data collection instruments

Parahoo (1997) defines a research instrument as a tool used to collect data. The data collection instruments used for this research were the questionnaires.

3.6.1. Questionnaires

Questionnaires were used as one of the primary data collection instruments. A mixture of closed ended (structured) and open ended (unstructured) questions were merged into one questionnaire which was used in collecting data from informal traders operating at Katanga market. The closed questions provided the quantitative or numeric data whilst the open ended questions provided the qualitative or text information. Brown (2001) divides the administration of questionnaires into two methods. One of the methods is self-administered whereby questionnaires are mailed to the respondents. This method was not chosen as it has its own challenges in that some of the questionnaires are not returned whilst in other instances, respondents might find it difficult to respond to questions they may perceive to be vague.

The other method of administering questionnaires as defined by Brown (2001) is the group administration. This method entails gathering the respondents to one place and administering the questionnaires all at once. This method has the advantage that the return rate is high and that respondents are able to seek clarification on questions that are not clear. However, to ensure that the number of questionnaires (65) for the research sample was reached, the researcher took a different approach and administered the questionnaires in person. Although this process was time consuming (five days), the process yielded positive results as the researcher was able to meet the targeted number of respondents.

Prior to the administering of the set of questions, the questionnaire was pre-tested with five informal entrepreneurs engaged in different forms of trade including tyre mending, flea markets, catering, vegetable vending and grocery tuck shop owner. Pre testing was done to ensure that all questions were clear and that elements of ambiguity had been removed. The questionnaires with

the informal business entrepreneur addressed issues such as the WASH needs for the sector, extent to which Norton Council was providing WASH services, willingness to pay and how the informal sector growth was impacting on WASH service delivery by Norton Town Council.

3.6.2 Interview guides

Interview guides were developed for the Norton Town council staff working in the Engineering, Housing & Community Service and the Health departments. Open ended questions were asked to all respondents. The open-ended questions allowed respondents to provide the much needed detailed information (Gall 2003). The approach also allowed me to ask probing questions as a way of follow up on areas I felt had not been fully responded to.

3.7. Data analysis

Data collected was grouped and analysed thematically, that is, according to themes running across the data sets collected from the different informal entrepreneurs. In this process, I was able to link the responses of each respondent against the questions asked and then compare with similar responses before making generalisations. The collected data was analysed to ensure that a proper interpretation of the questions was provided. Data collected was presented in tables and graphs for easy interpretation.

3.8. Ethical considerations

Ethical considerations are critical so as to observe the rights of people for privacy, safety, confidentiality and protection from deceit with the pursuit of scientific endeavour (Polit (2001)). Every effort was made to comply with the research ethics requirements as defined under the

Nuremberg code, 1947. Consent to interact with the respondents was sought and a full explanation on the purpose of the research was given to both the Norton Town Council staff and the informal business entrepreneurs. During the whole process of data collection and reporting, I made all efforts to ensure that a high degree of confidentiality was maintained and that the responses were reported accurately.

3.9. Research Limitations

The researcher encountered the following impediments in carrying out the study:-

3.9.1. Time constraints for the researcher

Time presented an immense challenge because the researcher is not only a student but is full time employed hence a balancing act had to be employed in terms of time management in order to meet the vital requirements of the research study.

3.9.2. Costs

The financial resources of the research were limited resulting in the research being confined to Katanga market in Norton Town Council to reduce the costs and meet the demands using the available financial resources.

3.9.3. Time constraints for the respondents

Due to the nature of the business of the informal traders where there is competition for customers, seven targeted respondents pulled out of the interviews before the end of the interview citing that the question and answer discussion was taking much of their business time from potential customers. However these were replaced by others within the strata who were willing to participate.

3.9.4 Political interference

Initially some of the targeted respondents were not keen to take part as they needed clearance from their political leaders first. They later agreed to participate after giving them the assurance that their names were not being taken and that the information collected was for academic purposes only.

3.10. Conclusion

This chapter gave a detailed account of the research methodology to be employed in data collection, analysis and data presentation. A description of the study area was given highlighting why Katanga market was chosen as the study area. The research philosophy and research design were clearly articulated. The mixed research method was used hence the sampling techniques were also discussed. In addition, the research instruments and the data analytical framework used were also discussed. The chapter was concluded by a discussion on the ethical considerations and the limitations encountered.

CHAPTER 4: DATA PRESENTATION ANALYSIS AND DISCUSSION

4.1. Introduction

The chapter presents the findings based on the responses to the research questions outlined in section 1.5.2 of Chapter 1. The findings were informed by the interviews conducted with the informal traders as well as the Norton Town Council staff. In addition, findings include observations that were made at the toilets and the areas where solid waste is disposed. An analysis of the findings was done to show the impact of the informal sector growth on WASH service provision.

4.2. Demographic information

A total of sixty five informal traders were interviewed. These comprised thirty six (36) female and twenty nine (29) male. Figure 2 shows the number of respondents and the age range.

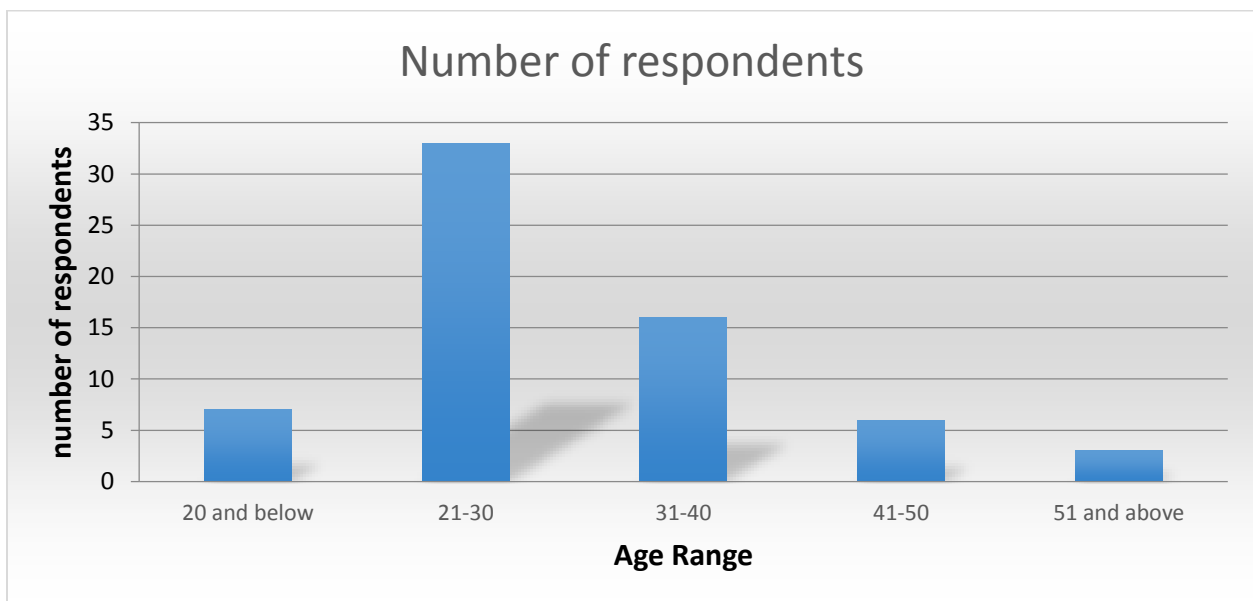


Figure 2: Age groups of respondents

Results of this study have also shown that a sizeable number of people in the informal sector are within the ages of 21 to 30 years. This reflects the high unemployment levels in the country as this age group constitutes the majority of people who graduate from school and fail to get employment in the formal sector. The 2014 Labour Force Survey also shows that 43% of the age group 15 to 30 years are in the informal sector (ZimStat Labour Force Survey, page 96).

The results of the study also showed that the majority of people in the informal sector were women. A number of reasons as to why more women were in the sector were given with the main reason being that the relatively small capital base required to start of the business ventures made it easier for women to penetrate the sector. *‘I am a widow aged 47 years. My dream has always been to operate a hardware business in town. However, with the limited capital base, I had to apply to NTC to operate a small hardware outlet from this market. The operating fees that I pay to NTC are not as high as the rentals I would have been paying had I been operating from a proper registered hardware shop’.* This is confirmed by the 2014 Labour Force Survey which shows that 51% of women are in the informal sector (ZimStat Labour Force Survey, page 96).

4.3. Causes of the growth of the informal sector in Norton

Results of this study have shown that lack of employment and closure of industries are the key drivers forcing people into the informal sectors. This suggests that the increase in the informal sector is directly related to the shrinking of the formal sector which has rendered a number of people jobless and thus losing a source of livelihood. The pattern can be explained by economic policies such as ESAP as well as general economic decline especially in the post 2000 that have

seen the implementation of austerity measures such as optimization of labour force that has resulted in loss of jobs.

The number of traders involved in informal trade has rapidly increased over the past five years (Figure 3). The number of informal traders increased from 1300 in 2012 to close to 5000 in the year 2016 signifying a 285% increase within a five year time frame. Such increases in numbers have had significant implications on the provision of WASH services and their impact on the environment as discussed in Section 4.7.

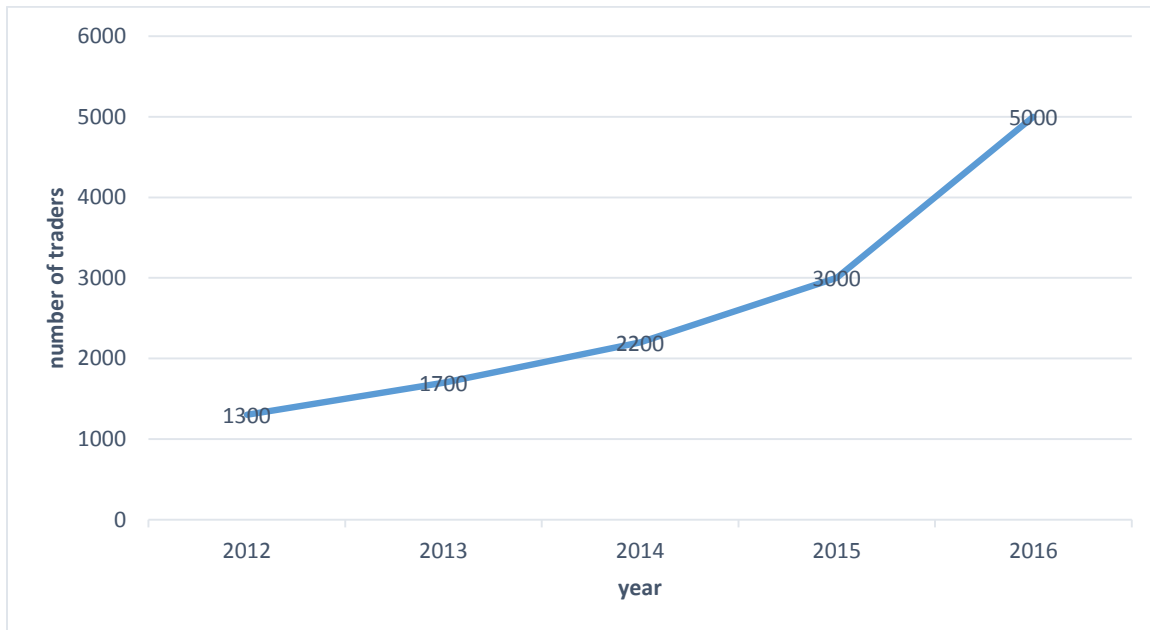


Figure 3: Temporal changes in the number of traders involved in informal trade between 2012 and 2016

As shown in the line graph above, results of this study have shown a rapid increase in the number of people involved in informal trade over the past five years with a sharp increase between 2015

and 2016. These results point towards the increasing role of the informal sector in developing countries especially those that are experiencing a shrink in the informal sector. A look at the company closures over the past 5 years show that a total of 4606 companies closed between 2011 and 2014 resulting in close to 64000 job losses (National Budget 2015). Again, the sharp increase in the number of informal traders between 2015 and 2016 could be attributed to the land mark ruling by the Supreme Court of Zimbabwe which saw thousands of workers' contracts being terminated.

Asked on the reasons why more people were engaging in the informal sector, respondents indicated that the laid off workers have to find alternative sources of livelihoods and the informal sector seem to readily absorb them. For instance, most respondents (94%) cited lack of employment in the formal sector as the major driver that is pushing people in the informal sector. *'The closure of Hunyani Pulp & Paper left us with limited job opportunities in the formal sector. Most of us here in Norton knew that once you completed Ordinary Level, getting a job at Hunyani was not much of a problem. The biggest problem is that the big companies which are operating now such as Hastt have down sized its workforce and this has also created another challenge'* (male respondent, 48 years).

The need to meet social obligations such as food and fees were also cited as key reasons for engaging in the informal sector *'I am the first born in a family of 3. My elder brother died in 2014 leaving behind his wife and 3 children. His wife also died at the beginning of 2015, and since then I have to take of my wife and 4 children as well as the 3 children left by my brother. My mother is also staying with me as she can no longer fend for herself due to ill health'*.

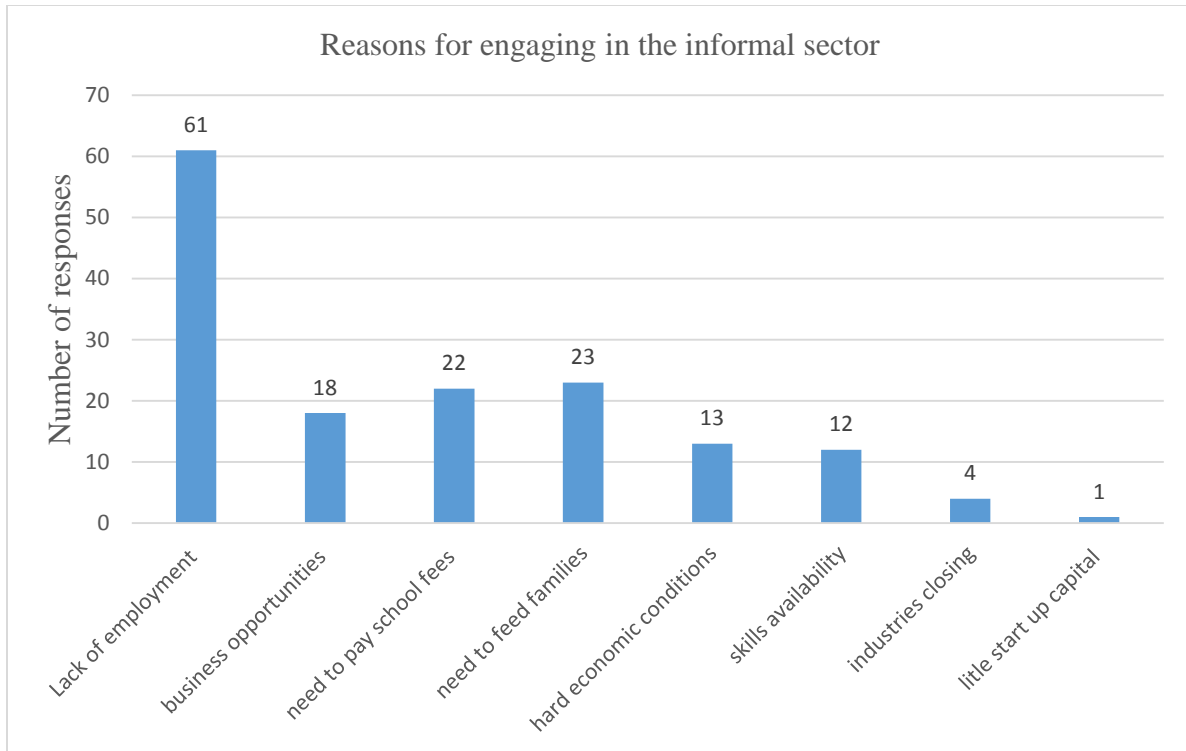


Figure 4: Key reasons for engaging in the formal sector

Apart from the reasons cited above, the availability of a ready market as well as possession of skills acquired from the closed industries were also identified as key reasons for engaging in the informal sector ‘*The economic hardships have pushed me into this sector. However, I have no regrets as I am assured of taking a dollar back home on a daily basis as there is a market for my products unlike those who work and only get paid at the end of the month*’ (female respondent, 32 years). The availability of a ready market also provides business opportunities in the sector thereby making it easier for anyone to start up their business venture.

4.4. Types of informal businesses at Katanga market.

The informal traders are engaged in various activities including vegetable & fish vending, carpentry, flea markets, sale of mobile phones & airtime, sale of live chickens, taxi operators, tyre mending, sale of used and new tyres, car washing, cycle repairs and food canteens. Results of analysis of informal enterprise by business type indicate that vegetable vending, sale of second hand clothing and fish vending are the key activities in the study site. Overall, it can be observed that the economy of the study site is sustained by various forms of vending as shown in Table 3 below.

Table 3: Type of informal businesses targeted at Katanga market

Type of informal business	Number of respondents
Vegetable vendors and other agricultural products	9
Carpentry	4
Flea markets	10
Sale of live chickens	5
Sadza canteens	6
Tyre mending & sale of second tyres	4
Hardware	6
Sale of mobile phones and airtime	6
Cycle repair	3
Sale of fruits	3
Car wash	3
Transport operators (kombis)	3
Hair salons	3
Total respondents	65

Of the sixty five (65) informal business operators sampled, 31% employ other people to assist them in conducting their businesses. The numbers of people employed ranges from one to 3 depending on the size and nature of the business. This result point towards the importance of the informal sector and suggests that the number of people involved in informal trade might actually be higher than what is normally estimated.

The figures in Table 3 shows that the majority of informal traders at Katanga market operate flea markets where they sale second hand clothing and school uniforms. This is followed by vegetable vending and the sale of other agricultural produce such as green vegetables, tomatoes, potatoes, butternuts, green mealies and dry maize. Sadza canteens, hardware and the sale of mobile phones and airtime are third. The sadza canteens prepare and sell the sadza onsite. The hardwares mostly sell building materials such as electrical and plumbing materials. The people who sell mobile phones also provide WhatsApp services as well as the sale of airtime. The fourth category comprises of a sizeable number of people who sale live chickens and have put up cages at the market. The fifth category comprised people into carpentry, people who mend tyres as well and at the same time sell second hand tyres. The other category which came sixth on the types of informal business entrepreneurs were hair salons, bicycle repairs, transport operators and sale of fruits.

4.5. WASH needs for the informal sector businesses

This section looked at the demand for WASH services by the informal sector. Given the range of activities the informal traders are engaged, one cannot assume that the WASH needs are homogenous hence the respondents were asked to identify their specific WASH needs. In identifying WASH needs of the informal traders operating at Katanga market, the factors such as

accessibility, affordability, availability and quality were considered. These concepts are defined in Chapter 1 section 1.9 on operational definitions.

The WASH needs were categorised into water, sanitation (which refers to access to toilet facilities), solid waste and hygiene. The informal traders were then asked to indicate their WASH needs in order of priority in each of the four categories.

4.5.1. Water

The water needs that were identified by the informal traders at Katanga market included drinking water for humans and chickens, hand washing, cooking, flushing toilets, bathing, keeping vegetables wet, cleaning utensils, washing fruits and vegetables and car washing. *‘I spend three quarters of my day at the market and need water to survive. Most importantly, I need water for drinking especially that I conduct my business in the open. I also need water to wash fruits and vegetables. When I want to use the toilet, I need water for flushing the toilet as well as water for handwashing’ (female respondent 29 years).*

From these water needs, the respondents were asked to prioritise the three most important water needs identified. Water for drinking, hand washing and flushing toilets were the top three water priority needs as shown in Figure 5.

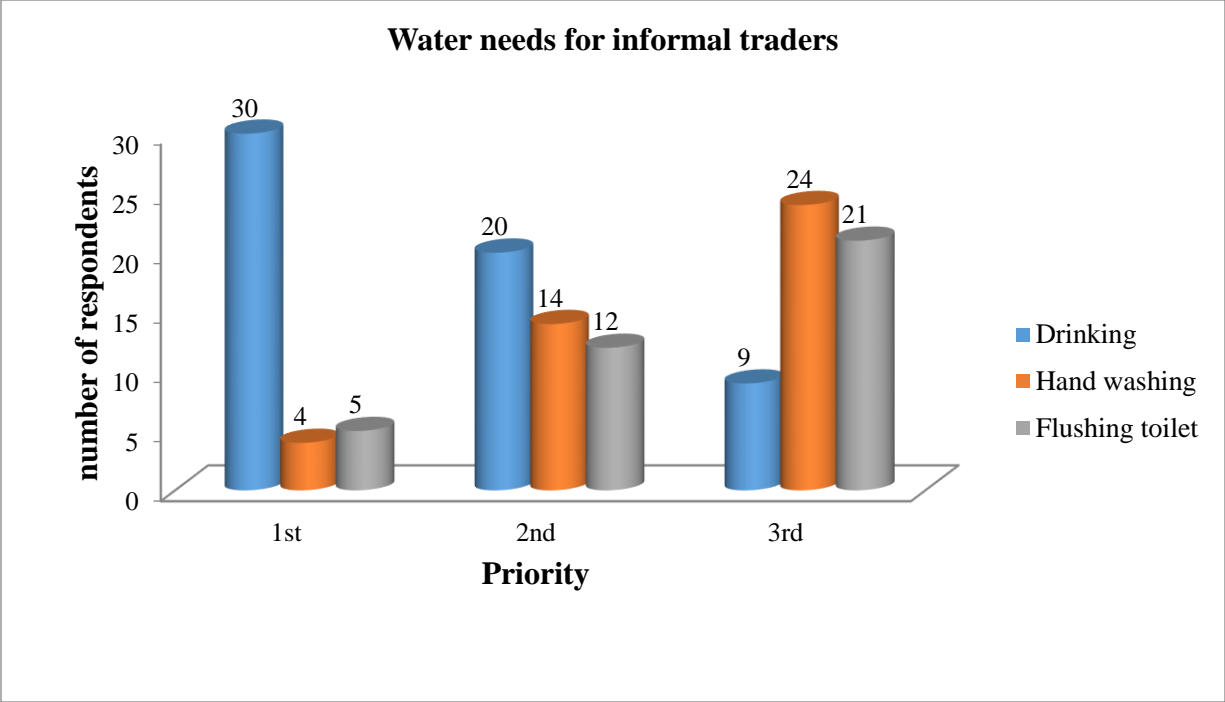


Figure 5: Water priority needs for informal traders

From the graph above, drinking water was dominant on the first and second priority needs with 30 and 20 respondents respectively confirming the importance of drinking water for people as well as for the live chickens on sale. The majority of the respondents indicated that they spent most of their time at the market hence drinking water was important to keep them hydrated. Others indicated that they conduct their business in the open and needed water to quench their thirst whilst others indicated that their homes were far from the market and could not carry water from drinking from home. The vendors selling live chickens, indicated they needed drinking water for their chickens which some of the vendors are literally ‘rearing’ at the market.

Water for hand washing dominated the third priority with 24 respondents citing the need to wash hands regularly especially after using the toilet and before handling food. Hand washing was

prioritised by the informal traders operating sadza canteens and those who handled food items. Handwashing after using the toilet was also prioritised by the informal traders who were conscious of their personal hygiene.

Water for flushing of toilets was also significantly important on the third priority with 21 respondents confirming the need to flush toilets regularly. The importance of water was also discussed under the sanitation needs as the inadequacy of water impacted on access to the public toilet at Katanga market.

4.5.2. Sanitation

Respondents identified the sanitation needs to include the need for having toilet facilities that are always accessible, functional and with handwashing facility with running water. In addition, the informal traders require toilet facilities to be clean and have adequate wiping material and bathing facilities. *‘I need a toilet that I am able to access as and when I want to use it. The toilet should have water which I can use for flushing and washing my hands. I also need a sanitary bin in the toilet as it is difficult for me not to change my sanitary pads during the time I am on my menses. In addition, the toilet should have a bench which I can use to change my baby`s diapers’ (female respondent 28 years).*

Out of the list of sanitation needs identified, the informal traders were asked to identify three (3) priority issues under the sanitation category (Figure 6).

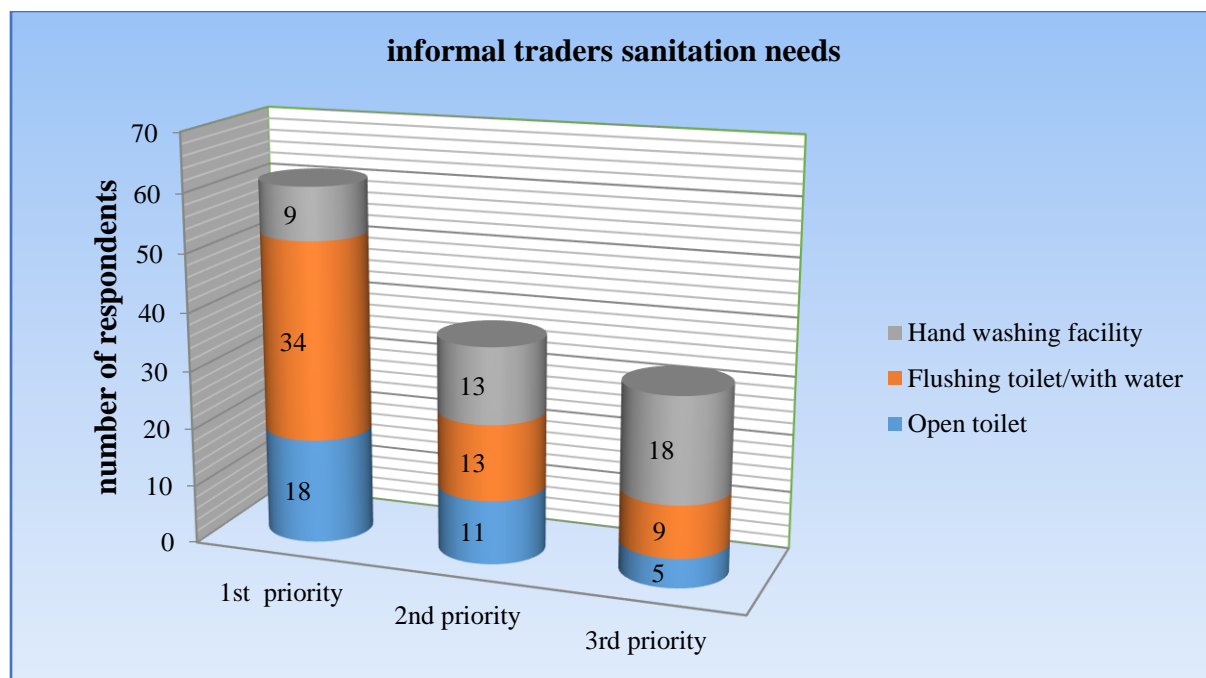


Figure 6: Sanitation priority needs for informal traders

Of the above sanitation needs, an open toilet, one with a functional flushing system and a handwashing facility came out as the three major priority needs of the informal traders at Katanga. The first priority was dominated by the need for a functional flushing toilet with 34 respondents, followed by open toilet and handwashing facility.

4.5.3. Solid waste

The respondents were asked to identify their solid waste services they expected from NTC. The informal traders identified the following needs; NTC to provide the informal traders with receptacles such as skip bins, drums and plastic bags, NTC to provide frequent collection services and to provide sweeping services.

The respondents were then asked to identify the three major services required in order of priority. The majority of the respondents constituting 80% (52 informal traders) prioritised the need for receptacles followed on the second priority by the need for regular collection with 51% (33 respondents). *'We need receptacles such as skip bins given the volume of waste generated at this market place. The plastic bins which we are given by NTC are not very useful as they fill up very quickly'* (male respondent 39 years). Sweeping services was also seen as important in the third priority with 14 respondents (22%) *'In the past the NTC used to provide casual labour to do the sweeping of streets and at the market. At the moment there is only person responsible for sweeping the whole of Katanga suburb and as such, the person is not coping'* (female respondent 51 years).

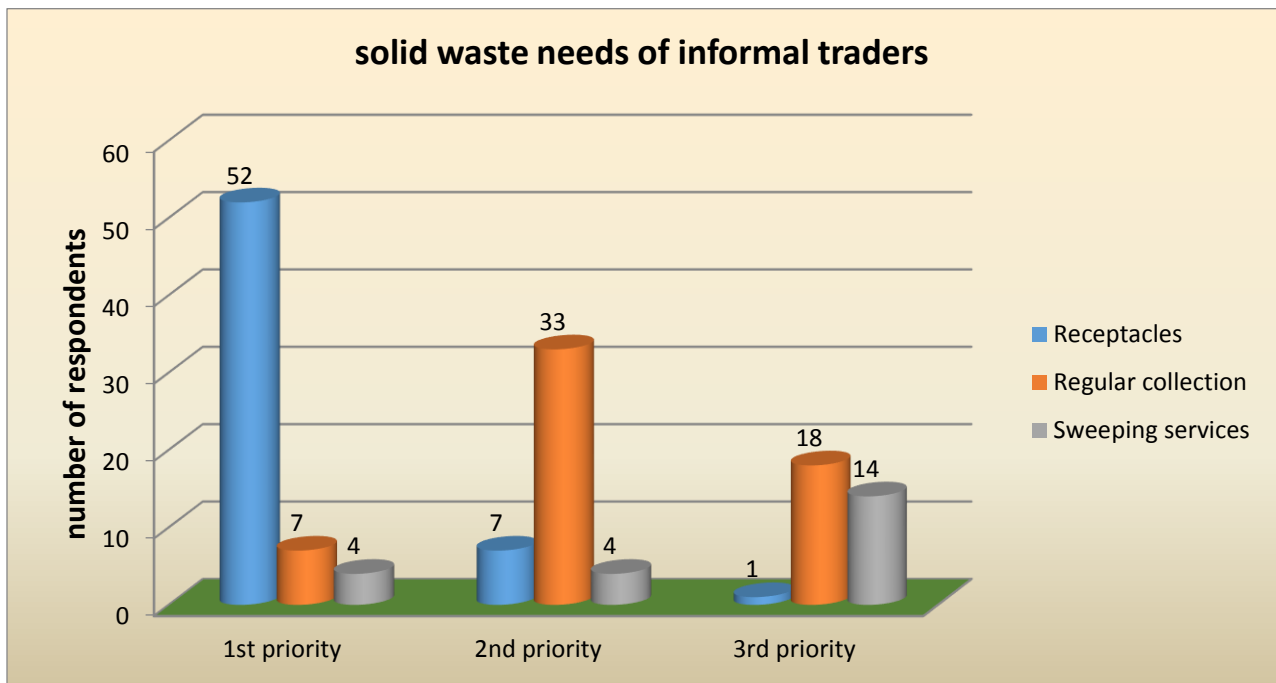


Figure 7: Solid waste priority needs of informal traders

4.5.4. Hygiene

The respondents were asked to identify the expected services from NTC which would satisfy their hygiene needs. Forty nine respondents (75%) indicated that they need hand washing facilities to enable them wash their hands before handling food and after using the toilet. The women also added that they needed a hand washing facility to use after changing the babies diapers or before they breast fed the babies. *'I have a 4 month old baby whom am breast feeding. I need water to wash my hands before I feed the baby as my hands will be dirty since I sell second hand clothes and shoes'* (female respondent 27 years). Another 19 respondents (29%) indicated the need for a shower as the business activities they are engaged in are strenuous and make them sweat. *'I am a commuter omnibus driver and leave home very early in the morning without taking a bath. I would need a shower which I can access during the off pick hours. This goes for my assistant as commuters at times complain that my assistant will be smelling of sweat'* (male respondent 27 years).

4.6 WASH services provided by NTC

This section looked at the supply side of WASH services by NTC. The analysis was done to determine if there were gaps between the informal traders WASH needs against what NTC provided.

Results of the study have shown that the growth of the sector has seen a decline in WASH services in terms of quality and coverage as the existing WASH infrastructure and related services were not designed to cater for the growing demands.

Although there has been a tremendous increase in the population of people in the informal sector at Katanga market, results of the study have shown that gaps still exist in relation to WASH service provision. The WASH infrastructure in urban areas is aged and in some cases almost dilapidated to the extent of not being able to cope with the increased demand. There was evidence of a mismatch between the WASH services provided by the local authority and the WASH needs of the sector. The results also showed that the existing infrastructure was put up at a time when few people were involved in the sector, and with more people venturing into the sector, negative effects on the existing WASH infrastructure are being observed.

4.6.1. Water

Results from the interviews with the NTC Engineering Department revealed that the local authority has provided a single tap to supply the Katanga market informal traders. NTC also indicated that there has not been an increase in water supply since the Town's establishment in 1935 yet the population has increased over the years from 5000 to an estimated 67591 in 2012. This signifies a more than 1350% increase in population against a background of decreasing water quantity as a result of losses in the distribution chain. The limited quantities supplied by Harare have left NTC with no option but to ration water supplied to all suburbs in the town. In addition to the challenges above *'the absence of isolation valves to effect a fair rationing schedule amongst the suburbs and townships has also led to unequal distribution of water resources in Norton town with Katanga suburb being affected'* (NTC official).

The situation is worsened by the fact that Norton is supplied with 5 mega litres against a demand of 20 mega litres of treated water from City of Harare. This results in a shortfall of 15 megalitres

and would explain the strict water rationing that is implemented by the NTC. *‘In as much as NTC would want to supply all its residents with water, the Council is also faced with a number of challenges including old pipes that are continuously bursting and leaking as well as a shortfall in water supply from Harare City’* (NTC official).

4.6.2. Sanitation

Interviews with the NTC Engineering department revealed that there was only one public toilet at Katanga market to cater for all the informal traders and admitted that the toilet facility was not adequate to cater for the large numbers of informal traders. The Engineering department also indicated that the NTC was faced with serious staff shortages such that one person had been assigned to work at the toilet on a daily basis. *‘Ideally, the toilet is to be opened from 07h30 to 16h30 daily but at times this is not the case especially at times when the employee is off duty or has been assigned to do other duties. The council cannot assign a person full time at the public toilet due to financial constraints to meet the wage bill’* (NTC official). This confirms what the informal traders highlighted especially on the fact that the toilet was locked most of the time.

4.6.3. Solid waste

Interviews with the both the informal traders and NTC staff in the Housing Department indicated that the council has a weekly collection schedule to collect garbage in Katanga Township. GIZ, a Germany International Organisation has donated a refuse compactor being used for waste collection. In addition the NTC has a special arrangement where they collect refuse from Katanga market on a daily basis as they come from other surrounding locations.

All the 65 respondents (100%) confirmed that NTC was providing solid waste removal services. However, 25% of the respondents were not satisfied with the frequency of refuse collection as they do not see the refuse truck on a daily basis as was highlighted by NTC staff. Through probing, it became clear that the 25% were operating from places not close to the main road, hence their refuse was not collected on a daily basis but once a week. The daily collections were only done for refuse for those close to the main road as this was the route used for the daily collections.

4.6.4. Hygiene

Results of the study showed that NTC Health department was providing limited hygiene inspection services due to staff shortages. *'The local authority only has a staff establishment of two (2) Environmental Health Technicians (EHTs) to provide health inspections across the town'* NTC official. With the prevailing situation at Katanga market, the EHTs are overwhelmed with the growing numbers of informal traders thereby compromising on the coverage of health inspection services.

4.7. Gaps in WASH service provision

This section looks at the gaps in WASH service provision by NTC and analyses the impact on WASH service delivery.

In determining the gaps, informal traders were also asked to indicate their satisfaction with WASH services provided by NTC in terms of quality and coverage. The growth of the sector has seen a decline in WASH services in terms of quality and coverage as the existing WASH infrastructure and related services were not designed to cater for the growing demands. The results of the study has shown that in the absence of proper WASH services, informal traders are likely to find

alternative ways of accessing the much needed WASH services and in most cases the options have a negative impact to the environment. The discussions below summarises the gaps on WASH service provision.

4.7.1 Water

4.7.1.1. Water quality.

Sixty three respondents (97%) were exceedingly not satisfied with the quality of water supplied by NTC. A small number of respondents (3%) indicated that they were satisfied with the quality of water supplied to them by Norton Town Council. Figure 8 summarises the different responses given on the question of satisfaction with the quality of water.

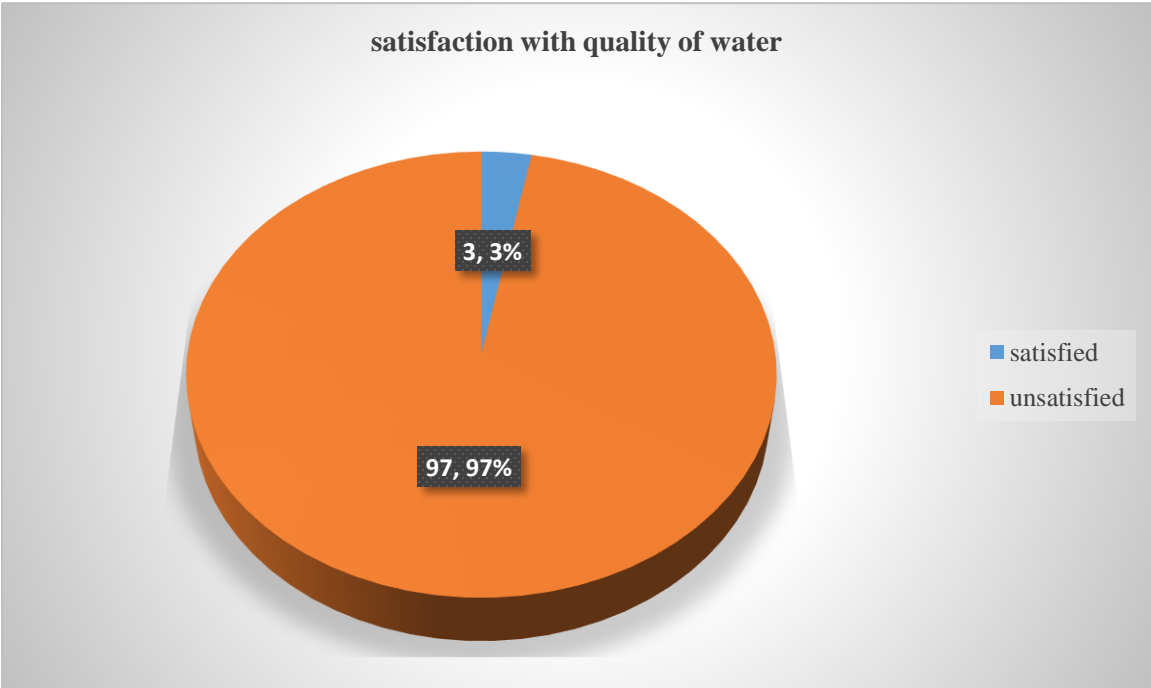


Figure 8: Informal traders’ satisfaction with water quality

The reason given by the 3% who were satisfied with the quality of water was that they had been drinking the water supplied by NTC for years without getting sick and for them this was an indicator that the quality of water was good. On the other hand, the 97% who were not satisfied, the main concerns on water quality were that the water was deemed dirty, smelling fish & sewer, had algae and that the water had a horrible taste *'the water being supplied by NTC is very dirty such that if you leave it in a glass for a few hours, you will begin to notice some mud settling at the base. The water also smells of fish, sewer and weeds and if you are someone who gets upset easily, you will vomit the moment you put it towards your nose'* (female respondent 24 years).

Figure 9 below shows the number of respondents not satisfied with the quality of water and the reasons for the dissatisfaction.

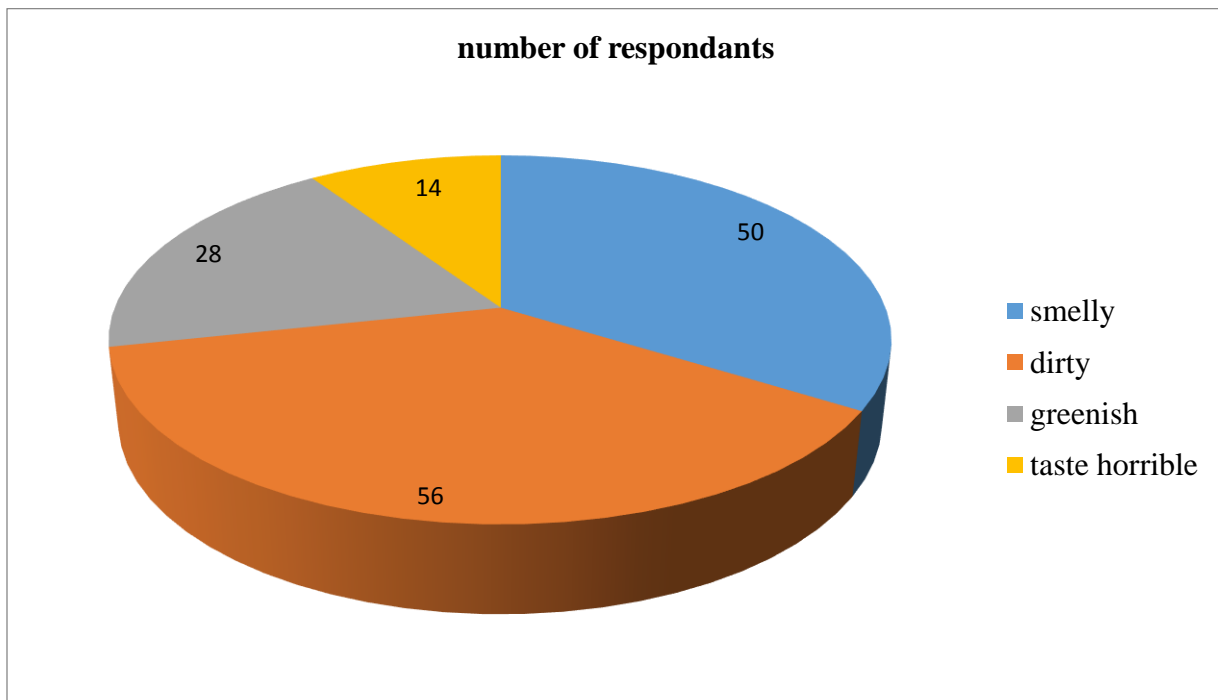


Figure 9: Reasons for dissatisfaction with quality of water

4.7.1.2. Water quantity

The majority of the informal traders were not satisfied with the quantity of water supplied by NTC to Katanga and surrounding townships where they resided. These constituted 74% of the informal traders interviewed. Figure 10 shows the levels of satisfaction with the quantity of water.

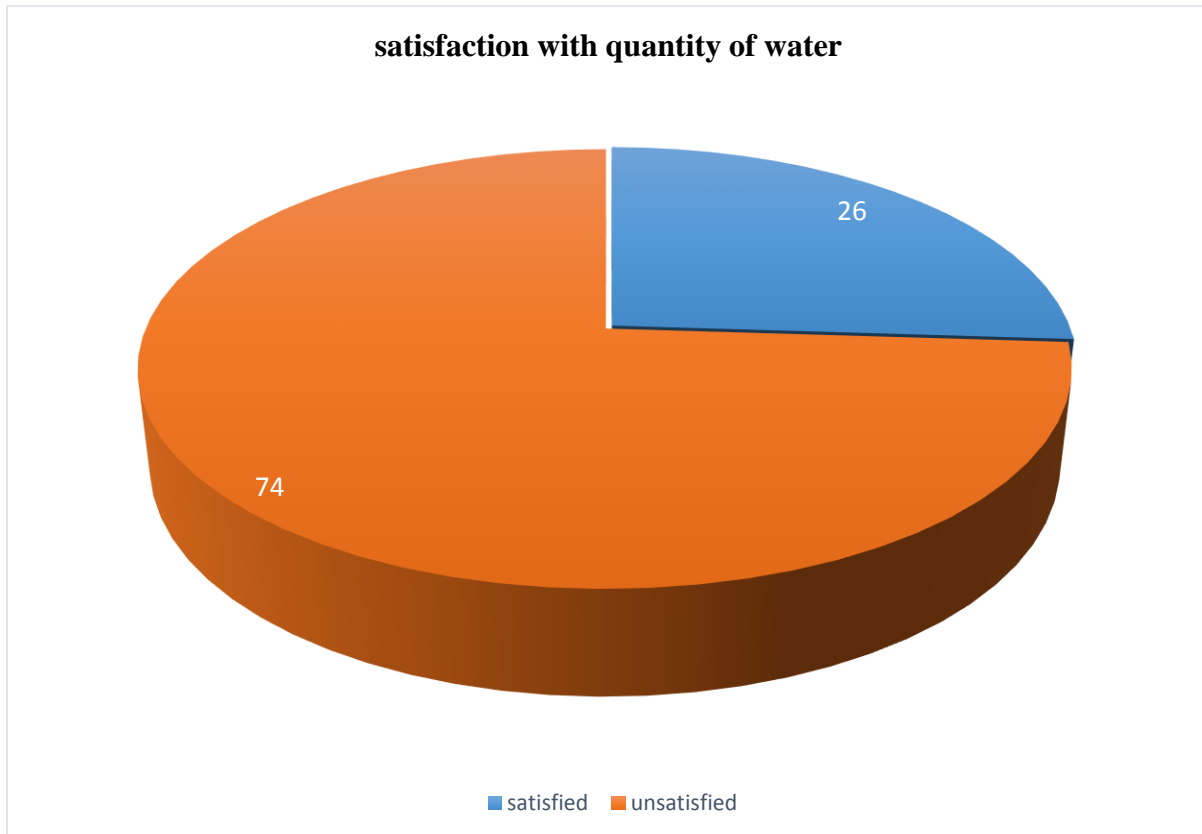


Figure 10: Satisfaction with water quantity

The 26% who were satisfied are mostly informal traders operating sadza canteens. These traders have been allocated tapped water and ablution facilities at the non-functional NTC beerhall and hence have access to their own water. They were also satisfied with the quantity of water because

the pressure of the water from the tap was deemed high enough to cater for their needs and those of their customers.

The 74% who were not satisfied with quantity of water cited various reasons such as strict rationing by NTC and the low pressure of water from the tap. These informal traders also cited that there was only one tap to supply the rest of the informal traders at Katanga, a scenario that compromises access to water.

Generally on water provision, the results of the study have shown the increase in the population of informal traders is putting a strain on NTC as the water demand is outstripping supply. The problem has been worsened by the ageing infrastructure which has seen an increase in transmission losses over the years. This scenario where demand for water has exceeded supply has seen a number of local authorities like Norton and Bulawayo resorting to water rationing. For NTC, the problem has been compounded by the limited supply of water by Harare City Council as the quantities supplied to NTC have remained constant yet the population in the town has been growing over the years with the sprouting of suburbs like Maridale, Johannesburg, Nhowe, Nharira, Galloway, Kingsdale and the CABS area.

Although water rationing is used as a control measure, its impact are felt more by people operating at the markets as they are not able to store large quantities of water which they could then use at the times when there is no water. At household level, people can store water in large containers, a strategy that is not possible when one is at the market stall because of the limited operating space.

Results of the study showed that the single tap supplying the Katanga market was put up years back when just a few informal traders into hardware and vegetable vending were operating at the

market. However, with the increase in the population of informal traders at Katanga market without corresponding adequate water supply by NTC, there are fears of a cholera outbreak as some of the informal traders are drawing water from sources that are not safe for drinking. Norton Town was one of the towns worst hit by the 2008/9 cholera outbreak with 1,266 confirmed cases and 52 deaths, hence a repeat of that situation will put a strain to the health delivery system as the town is serviced by one public hospital. Statistics have shown that 88% of diarrhoeal diseases are attributed to unsafe water supply (WHO 2004, page 86) and the fact that some informal traders draw water from unsafe sources for use while at the market has serious health consequences.

4.7.2. Sanitation

4.7.2.1. Satisfaction with quality of sanitation services

Of all the respondents interviewed 17% were satisfied whilst 83% were not satisfied with the quality of sanitation services provided by Norton Town Council as shown in Figure 11.

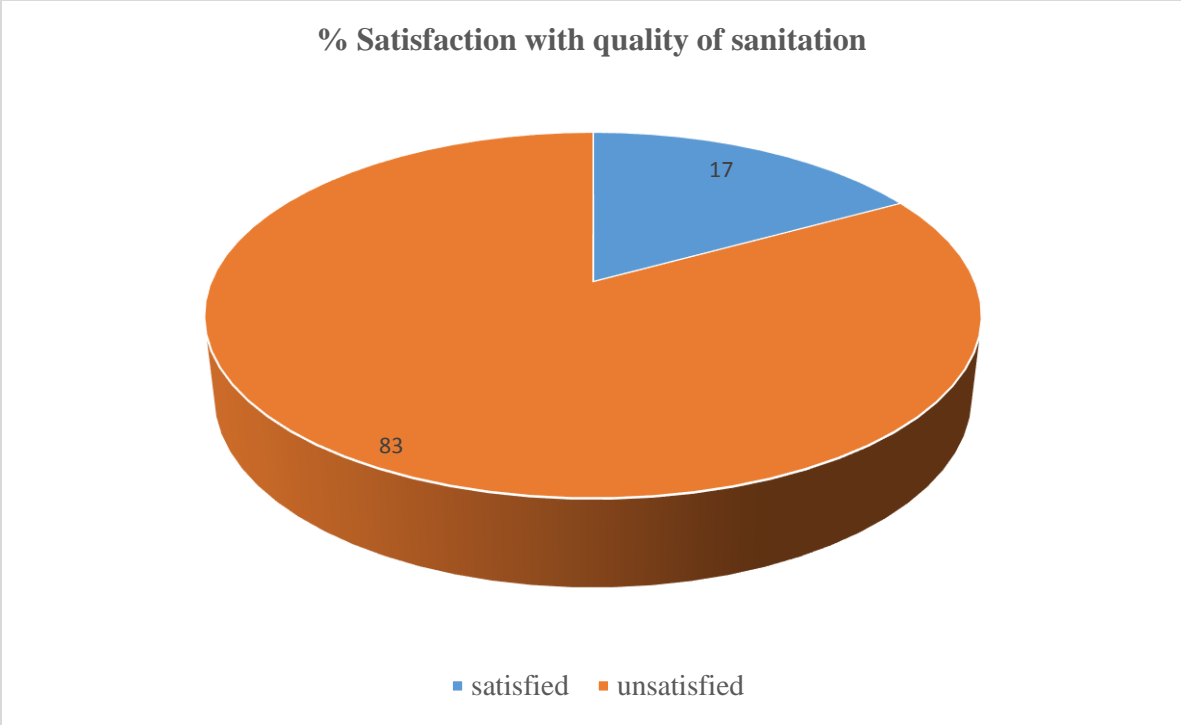


Figure 11: Satisfaction with quality of sanitation

The majority of the 17% satisfied with the sanitation services were those operating sadza canteens and have been allocated the toilet at the NTC disused bar. The other respondents in this category also pointed out that they were satisfied with the sanitation facility (public toilet) as it was regularly cleaned and that at times one would be supplied with wiping material.

Approximately 83% of the respondents were not satisfied with the sanitation facility (public toilet) at Katanga market. They cited the following:

- Failure to access the Katanga market public toilet facilities as the toilet was locked most of the critical times i.e., in the morning and afternoon or when the attendant went home. The

public toilet was also locked when the attendant was granted leave days. Staffing of the available toilet was also cited as a challenge as the toilet was locked most of the time

- Lack of water for flushing and hand washing all the time.
- Lack of toiletries such as toilet paper, hand washing soap and cleaning detergents.
- Women cited lack of bins for sanitary ware disposal. This resulted in some of the women having to flush the pads away and in the process contribute to the frequent blockage of the toilet.

Figure 12 provides a summary of the number of respondents and the reasons for dissatisfaction with the quality of sanitation services.

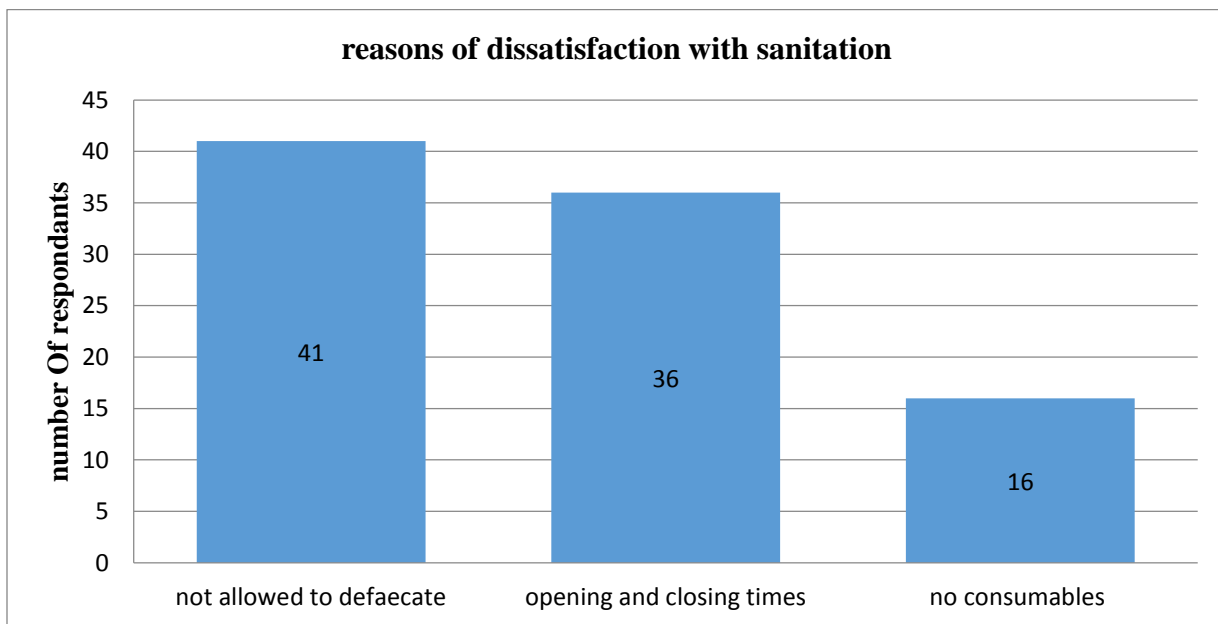


Figure 12: Reasons for dissatisfaction with sanitation facility

From the graph above, 41 respondents (63%) were not satisfied because they were not allowed to defecate during the time when there was no running water at the toilet. This links well with the

reason why some of the respondents were not satisfied with the quantity of water supplied by NTC. In addition 36 respondents (55%) were not satisfied with the sanitation services as the public toilet was opened late or was closed for days with no explanation given to the informal traders on the reasons for the closure. The other 16 respondents (24%) indicated that they were not satisfied because there were no consumables such as washing soap for hand washing, wiping material as well as cleaning detergents to be used by the NTC employee.

4.7.2.2. Sanitation options used by informal traders not satisfied with the service

As a result of the informal traders’ dissatisfaction with the sanitation facilities, respondents have devised options for accessing sanitation facilities (Figure 13).

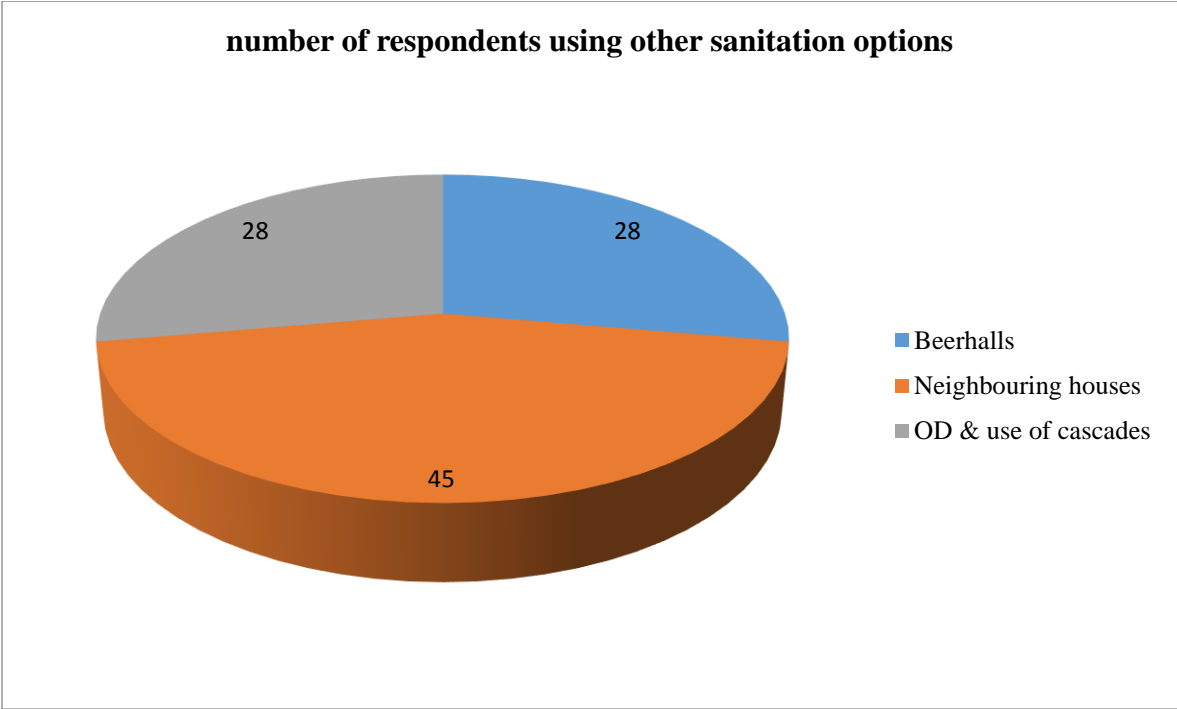


Figure 13: Sanitation options available for informal traders

Of the 65 respondents, 45 indicated that informal traders were using neighbouring houses. However this service was not free as the informal traders were asked to pay either a monthly fee for the use of the toilet or buy consumables such as toilet cleaning detergents and wiping materials. Other households were charging US\$0.50 for using the toilet twice in a day. *'If there is no money to pay at the neighbouring houses, the option is to use the toilet at the beerhall as shop owners refuse access to their toilets by the public'* (female respondent 31 years).

The majority who used the beerhalls were men as women found it very difficult to use the toilet for fear that by going into the beerhall, people would think they were either going to drink alcohol or solicit for sex. While some of these options are not safe for improved public health, others create serious gender violations for the informal traders especially women. The use of beerhalls is an option mostly for patrons and women find it even more difficult to go into a beerhall for fear of being viewed as prostitutes when they enter the beerhalls to use the toilets and also can become subjects of all forms of abusive language from men in the beerhalls. In such instances women mostly find themselves with an option of either going back home to use a toilet or rent a toilet at a nearby house around Katanga business centre.

The results of the study also showed that there was an increase in open defecation due to the inadequacy of water as well as the inadequacy of the existing sanitation facility as one public toilet was serving the more than 5,000 informal traders. *'If one failed to get access at the neighbouring houses or the beerhall, the option was to practice open defecation in the nearby fields or behind the beerhall'* (male respondent 25 years). The observations made at the open fields around Katanga market showed the magnitude of the problem of open defaecation. Open defecation contributes to

eutrophication of water bodies since human faecal matter is rich in nitrates(National Sanitation and Hygiene Policy, Zimbabwe 2016 Background Paper) as human waste will be washed into the dams and rivers thereby increasing their pollution load.

Achieving Open Defecation in Katanga is much more complex as the single public toilet that is meant to serve the informal traders at Katanga market is not always open or in most cases does not have water for flushing. According to the Multi Indicator Cluster Survey 2014 (MICS), an improved sanitation facility for excreta disposal include flush or pour flush to a piped sewer system or septic tank. The study at Katanga business centre revealed that the public toilet has seven squat holes serving over 5000 informal traders. This shows that the squat hole ratio at the Katanga market is 1:714 thereby creating a potential health disaster which will not only affect the informal traders but the town at large.

It should be noted that the inadequate human excreta disposal and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio and is an important determinant for stunting (Cairncross, 2010). As discussed in chapter 4, the various options employed by the informal traders at Katanga include use of beerhalls, open defaecation, renting toilets at nearby houses, going home to relieve themselves.

The study results concurs with the findings from other studies conducted in Chitungwiza and Bulawayo (Moffat 2012; Mukhlani & Nyamupingidza 2014) The study by Moffat (2012) on WASH challenges faced by informal traders confirmed that the increase in the population of vendors against the existing infrastructure was impacting negatively on the environment as the practice of open defaecation in urban areas was on the increase. In the absence of a functional toilet

(this refers to a toilet with a functional flushing system) there is bound to be an increase in the practice of urban defecation as people will be having limited sanitation options (Mukuhlanani & Nyamupingidza 2014).

The study results also showed that the growth in the population of informal traders impacted negatively on WASH service delivery in urban areas by causing blockages of toilets as well as contribute to the blockages of the sewer reticulation systems '*the blockage of the toilet is mainly due to the bad practices where women throw in substances which cannot be flushed such as sanitary pads and pampers*' (NTC official). In such instances there will be no sustainable development as resources which could have been channeled towards improving service are spent on attending to blockages. The Public Health Act (Sections 64-72) specifies that community hygiene is a critical component of achieving human development. Human waste is rich in nitrates which are harmful to people`s health.

Over and above these challenges, there was pressure on the sewer system as the existing system had not been designed to handle the large volumes caused by the increase in the number of informal traders. This resulted in pipe bursts. In other instances, the challenge of sewer outflow at the back of the toilet was experienced due to the increase in the flow of sewer '*at times I avoid using the toilet because of the raw sewer flowing especially around the public toilet. The sewage is also a problem as it creates a breeding ground for flies. This becomes a problem for some of us into vegetable selling as people do not want to buy where they see flies*' (male respondent 47 years).

4.7.3. Solid waste

The results of the study have shown that illegal dumping of waste is a major challenge as evidenced by the piles of garbage around the Katanga market area. This is despite the support rendered to NTC by GIZ who constructed land fill as well as the procurement of a refuse compactor and a tractor and that NTC provides scheduled refuse collection. This may therefore suggest that the problem of illegal dumping of solid waste at Katanga goes beyond the provision of solid waste infrastructure but that it has to do with the behaviour of informal traders and their customers who continue to dump solid waste at undesignated places *'The illegal dumping of waste contributes to the spread of flies, the rodent menace and the breeding of mosquitoes which contribute to the spread of human disease'* (NTC official). Uncollected solid waste harbours vectors such as houseflies, mosquitoes and rodents which contribute to the spread of diseases (National Sanitation and Hygiene draft policy, 2016).

Littering was also observed in and around the Katanga market and this problem has been attributed to the increased population of informal traders at the market place. Litter consisted of waste products disposed improperly. Different forms of waste such as used paper, peels from fruits, kirlites, empty cans, hair from the saloons, 'freezit' plastics and empty plastic drinking bottles were being thrown all over the Katanga market place by some of the informal traders and their customers. Litter is a threat to public health as the litter discarded on the streets can travel through the storm water drains to the dams. Furthermore, people can be injured if they step on broken glass or empty cans.

Some of the informal traders were said to be opening manholes along the sewer line and dumping solid waste which resulted in the blockage of the drainage system. Others were also dumping solid waste in storm water drains causing blockages whose effect was felt during the rain system *‘one of the effects of the increase in the population of informal traders we have observed at Katanga market is that people are dumping waste in storm drains. This creates serious challenges during the rainy season as water will not be flowing thereby causing blockages in the system’* (NTC official). Dumping solid waste along the storm water drains was also creating a breeding ground for flies and mosquitoes.

General pollution of the environment was also identified as the other challenge emanating from the informal sector growth. Different forms of pollution were identified to include water and air pollution. In as much as people may not know the degree or implications of causing pollution, it should be noted that pollution exposes citizens to disease outbreaks which further endangers public health.

According to both NTC Health department and the informal traders themselves, some of the waste generated at Katanga markets finds its way to Darwendale Dam thereby contributing to water pollution. The pollution of Darwendale Dam was highlighted as a cause for concern as the dam did not only supply Harare City Council (who then sold water to NTC), but that the pollution impacted negatively on surrounding places such as Chinhoyi and Ruwa.

Moreover, some of the business activities which the informal traders are engaged also contributed to high levels of air pollution *‘the burning of tyres by those selling second hand tyres is the major contributing factor to air pollution in Katanga. We have asked some of these people to stop the*

practice and the response we get is that we should mind our own business' (male respondent 51 years). The other category of informal traders identified to be contributing to air pollution were those who had a tendency of burning the solid waste they generated as they were not taking their refuse receptacles to the collection points identified by NTC '*what is frustrating is that you still see people burning waste when the council provides refuse collection services'* (NTC official). Lastly, the other contributing factor to air pollution is that Katanga market area is not paved hence the whole market area is dusty and the situation is worse during the summer period.

4.7.4. Hygiene

The majority of the respondents (77%) were not satisfied infrastructure and related services provided by NTC towards hygiene promotion at the Katanga market. The main reasons contributing to the dissatisfaction were that some of the taps at the handwashing basins were not working. In addition to this challenge, water was hardly available. Again the public toilet did not have shower facilities. The remaining 15 respondents (23%) did not care about these hygiene issues. All they were concerned with was to have water for drinking and flushing of toilets. 24 respondents (37%) who were all women added that they were not dissatisfied because NTC was not conducting hygiene promotion education at the market place. Their hygiene knowledge on the importance of hand washing with soap was obtained from the few NGOs operating in the town, from the media or when they visited the Norton General hospital.

Interviews with NTC Health department staff indicated that they were short staffed and not able to conduct the hygiene promotion sessions at the market place, hence the reason why they did the sessions with those who visited the hospital.

Poor hygiene practices especially at the point of handling food and handwashing with soap after using the toilet were observed as key challenges. Re-cycling of water was also observed especially at the food canteens as dirty water was being used to wash dishes. Hygiene promotion is becoming more of a challenge in most urban local authorities around the country as urban councils are short staffed on personnel to do the health inspections. The NTC Health department is not spared of this challenge as the local authority only has a staff establishment of two (2) Environmental Health Technicians (EHTs) to provide health inspections across the town. With the prevailing situation at Katanga market, the EHTs are overwhelmed with the large numbers of informal traders thereby compromising on the coverage of health inspection services.

Results of the study also concur with the findings from studies conducted in other parts of Africa. An assessment of street foods consumed in Ouagadougou, Burkina Faso revealed that vendors did not respect good hygiene practices (WHO, 2006) whilst a study conducted in Accra, Ghana to evaluate the role of street food vendors in the transmission of diarrhoeal pathogens showed that the majority of food vending sites were exposed to flies (WHO, 2006). Results from these two studies show the magnitude of poor hygiene practices in instances where health inspection mechanisms are not adequate to cover the increased population of informal traders, a situation that is prevailing in Norton. Furthermore, the increase in the population of informal traders is stretching the already capacities of urban local authorities to keep their towns clean resulting in poor environmental hygiene practices and methods that expose the public to public health risks, particularly the spread of water and food borne diseases.

4.7.5. Other challenges observed

Vandalism of WASH infrastructure was observed especially in the male toilet thus compromising on the services provided by the Council. Broken cisterns, broken doors and taps were among the infrastructure observed. In the men`s toilet, there was evidence of footprints on the walls which showed that some were gaining access into the toilet through the roof. Interviews with NTC Engineering department indicated that the people who were likely to have vandalized the sanitation infrastructure were those people forcing themselves into the toilet at night.

The other challenge impacting on WASH service provision is the non-payment of operating fees. According to NTC records, around 80% of the informal traders were not paying their trading licenses making it difficult for the Council to expand the existing WASH infrastructure and services. Furthermore, the NTC revealed that the percentage of informal traders who are not paying their licenses has been increasing since the time of the Government directive of 2013 to local authorities to cancel debts *‘NTC does have residents who used to pay their operating licences and rates for their houses religiously. Since 2013, we have noticed a decline in the revenue collected. Discussions with some of the people who were paying have indicated that they are waiting for a possible cancellation in the run up to the 2018 elections’* (NTC official). Since then NTC is finding it difficult to expand its infrastructure to meet the growing demands as the existing infrastructure had not been designed to cater for these large numbers. When the Katanga market started, the informal traders at the time were selling vegetables and hardware only; however, at the moment other forms of trading such as the sale of second hand clothes, flea markets, sale of mobile phones, hair salons and the sale of second hand tyres have emerged.

4.8. Conclusion

The chapter presented a detailed analysis of findings drawn from the interviews conducted with NTC staff and the informal traders aimed at determining the impact of the growth of the population of informal traders operating at Katanga market on WASH services. The analysis was also informed by the observations made at the Katanga market and surrounding environs. The findings were presented and analysed according to common themes identified. Pie charts and graphs were also used for ease of presentation of data, interpretation and analysis. Findings of the study have shown how the increase in the number of informal traders operating at Katanga market has impacted on the environment. The findings of the study also showed the gaps in WASH service provision by NTC

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The chapter presents a summary of the key research findings presented in Chapter 4 under the thematic areas of water, sanitation, solid waste and hygiene. Furthermore, the chapter draws conclusions from the study and put forward recommendations to be considered by NTC in addressing the gaps identified.

5.2. Summary of key findings

Lack of employment and closure of industries are the key drivers forcing people into the informal sector. This suggests that the increase in the informal sector is directly related to the shrinking of the formal sector which has rendered a number of people jobless and thus losing a source of livelihood. Furthermore, the pattern can be explained by the economic policies such as ESAP as well as general economic decline especially in the post 2000 that have seen the implementation of austerity measures such as optimization of labour force that has resulted in loss of jobs. The number of traders involved in informal trade has rapidly increased over the years with the number of informal traders at Katanga market increasing from 1300 in 2012 to close to 5000 in the year 2016 signifying a 285% increase within a five year time frame.

The priority WASH needs for informal traders include water for drinking, flushing toilets & hand washing, functional toilets, receptacles for solid waste and related infrastructure for good hygiene practices. However, there is a gap between the demand and supply of WASH services to informal traders operating at Katanga market as the NTC failed to satisfy the WASH needs of the growing

sector. The impact of the informal sector growth on WASH service provision has been demonstrated by the illegal dumping of solid waste, littering, sewer blockages, blockage of drainage system, toilet blockages, open defaecation, poor hygiene practices especially on handwashing after using the toilet and handwashing before handling food, vandalism of WASH infrastructure and pollution of the environment. The non-payment of operating licences also contributes to the negative impact as the small revenue collected is not enough to allow any meaningful WASH infrastructural development in Norton town.

5.3. Conclusions

Although the findings of the study showed the negative impact of the informal sector growth on WASH services, my overall conclusion is that the problem is not the increase in the population of informal traders, but that the problem is NTC`s failure to take responsibility in providing the much needed WASH services as provided for in the Legal Framework for WASH in Zimbabwe discussed in section 2.7, Chapter 2. The Urban Councils Act Chapter 15:29, the Environmental Management Act, the Public Health Act and other related Acts and Statutes clearly outline the responsibility of Urban Councils in providing WASH services, however lack of implementation remains a challenge as NTC is failing to translate the policies on paper into action.

A number of infrastructural and institutional challenges including the aging WASH infrastructure for both water supply and sewer system, inadequate WASH infrastructure, rusty & leaking pipes as well as the manpower shortages were identified as the major constraints faced by NTC in its quest to provide adequate WASH services to the informal traders. However, the researcher`s standpoint is that failure by NTC to take responsibility and address these infrastructural and

institutional challenges will continue to fuel the negative environmental effects being experienced given the high rate at which the informal sector is growing in Norton. Currently NTC seem to have turned a blind eye to the continued sprouting of vending sites yet the local authority is responsible for urban planning. Again, the partisan political elements have continued to affect town planning with some employees in the local authority claiming to be powerless.

5.4. Recommendations

There is evidence that the informal sector is growing thereby putting pressure on existing WASH infrastructure and related services. To reduce the impact of the informal sector growth on WASH services and promote sustainable development in Norton, the study makes the following recommendations:

- a. NTC should take responsibility for urban planning and prioritise service provision in the WASH Strategic plan. The Local Authority should invest in expanding the existing infrastructure to accommodate the continued growth of the informal sector. This is in tandem with the SDG 6 aimed at ensuring the availability and sustainable management of water and sanitation for all by 2030.
- b. There is need for the local authority to replace the aging and leaking water and sewer pipes to improve WASH service delivery. Funding for this purpose can be generated by ring fencing an agreed percentage from the rates and fees paid by the residents in the town.
- c. NTC should conduct a review of the by-laws governing the operations of informal traders as the current by-laws are outdated. The by-laws should put in places mechanisms to ensure all informal traders operate from designated sites to avoid the current scenario at the

‘Speedy’ area where people are selling from all over the place. Enforcement of by-laws will protect the people from exposure to hazards.

- d. A proper data base of the people in the informal sector in Norton should be put in place. The data base will serve a number of purposes. Firstly, it will give the NTC policy makers information on the numbers and nature or forms of business the informal traders are engaged in. This information will be crucial to guide policy makers in designing programmes and projects which will incorporate the WASH needs of the sector. Secondly, the data base will be used in tracking the payment of operating licences by the informal traders.
- e. NTC should enforce by-laws on the maintenance of cleanliness and prevention of nuisances. The Public Health Act Chapter 15:09 Section 83 gives the responsibility of maintenance of cleanliness and prevention of nuisances to local authorities. Enforcing these by-laws will address the challenges of illegal solid waste management, littering and vandalism of WASH infrastructure. Enforcement of the by-laws will also prevent the selling of fresh fish and chicken cuts as these foodstuffs are being sold from buckets compromising people`s health as fresh fish and chicken need to be sold from the refrigerators.
- f. Historically open defecation was a rural problem but with the growing rural to urban migration compounded with limited infrastructure in urban areas the challenge of open defecation has entered the urban centres. To deal with the problem NTC should adapt the Sanitation focused Participatory Health and Hygiene (SafPHHE) approach being used in the rural WASH programmes to trigger shame and disgust towards the practice. The

SafPHHE approach has been found to be successful in rural areas, hence adapting it to the urban context will go a long way in addressing the challenges.

- g. NTC should extend the Citizen Support to Service Delivery (CSSD) approach to Katanga market. Currently the programme is being implemented in 3 suburbs of Norton and targeted at households and not public places. The CSSD is an emerging approach used for building trust between residents and Local Authorities. The CSSD approach ensures that there is better service delivery by the Local Authorities as it educates and raises awareness among citizens on their rights and responsibilities. This allows for problem solving in a constructive manner. This approach will address the challenge of non-payment of operating licences by informal traders.
- h. NTC should work closely with NGOs operating in the town towards the formation and strengthening of market health clubs. Market health clubs are a tool used for dissemination of hygiene promotion messages. The market health club approach will address the issues of poor hygiene practices at Katanga market.

5.5. Conclusion

The chapter presented a summary of the key research findings presented in Chapter 4 under the thematic areas of water, sanitation, solid waste and hygiene. Furthermore, the chapter presented the conclusions drawn for the study based on the researcher's analysis of issues. The overall conclusion drawn from the study points to the inability to provide adequate WASH services by NTC which has resulted in the negative environmental impacts discussed in Chapter 4. The chapter was concluded by the recommendations to be considered by NTC in addressing the WASH challenges being faced in the town.

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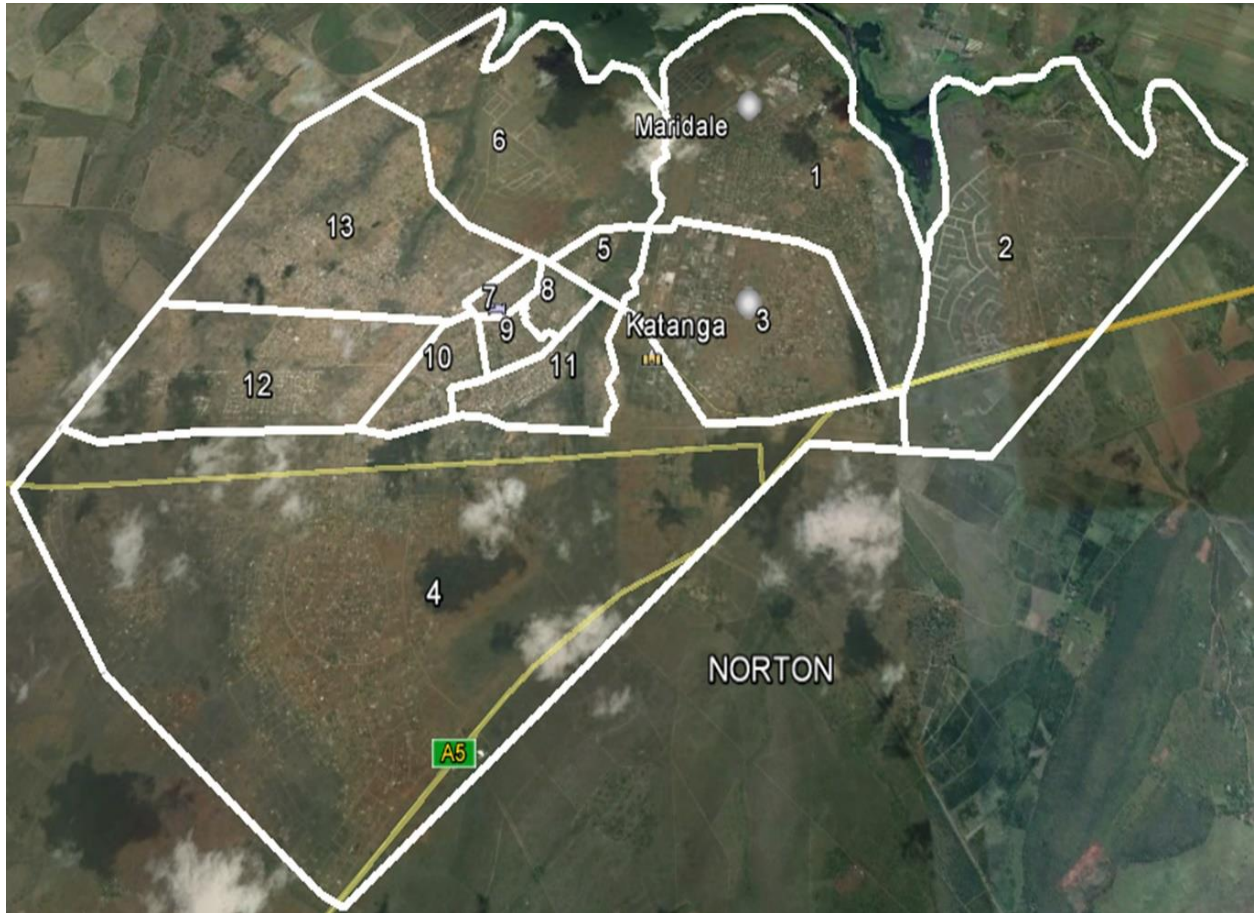
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Plate 1: Location and spatial extent Katanga suburb in Norton town



Appendix 1: Questionnaires for informal traders

I am a student at the Midlands State University, Zimbabwe pursuing a Masters in Development Studies and am carrying out a research entitled **‘Impact of informal sector growth on water, sanitation and hygiene service provision: The Case of Norton Town Council in Zimbabwe’**

You have been randomly selected to participate in the study by answering the questions as honestly as possible. The information to be collected is for academic purposes only and your response will be kept strictly confidential and your names will not be published. Participation in this research is voluntary and if at any time you feel you no longer want to carry on please be free to quit.

This interview will take approximately 30 minutes. Thank you for your time

Broad Category	Specific outcome areas of inquiry/questions	Responses/Brief notes
	1. Sex	Female <input type="checkbox"/> Male <input type="checkbox"/>
	2. Age (in years)
	3. Household size

PART 1 Personal Data	4. Type of business venture
	5. How long have you been operating at this business at Katanga
	6. Do you employ other people in this type of business	1. 2Yes <input type="checkbox"/> No <input type="checkbox"/>
	7. If yes, how many?	
	8. What motivated you to engage in informal business?	1 2 3

PART 2: WASH needs

WASH needs	9. What are your WASH needs from NTC in order of priority?			
	Water	Sanitation (toilets)	Sanitation (solid waste)	Hygiene
	1	1	1	1
	2	2	2	2
	3	3	3	3

	10. (a)How would you rate the quality of water provided by NTC	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
	(b)Give reasons for your answer	1 2 3
	11. (a)How would you rate the quantity of water provided by NTC?	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
	(b)Give reasons for your answer	1

PART 2 WASH Needs		2 3
	12. (a)How would you rate the quality of sanitation (toilets) provided by NTC?	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
	(b)Give reasons for your answer	1 2 3
	13. If the answer is unsatisfactory what other sanitary options do you have?	1 2 3
	14. Does NTC provide waste removal services?	Yes <input type="checkbox"/> No <input type="checkbox"/>

	15. If yes how would you rate the collection services according to your waste generation?	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
	(b). Give reasons for your answer	1 2
	16. If the answer is unsatisfactory, what other solid waste disposal methods do you engage in?	1 2
	17. On hygiene, do use good hygiene practices of washing hands with soap after using the toilet or before handling food	Yes <input type="checkbox"/> No <input type="checkbox"/>
	18. If yes, how often do you do it	
	19. If not, why do you not wash your hands	

PART 4: Informal sector growth and impact on WASH service delivery

Impact of informal sector growth on WASH service delivery	20. In your opinion, has the number of informal business operators increased from the time you started operating your business at Katanga	Yes <input type="checkbox"/> No <input type="checkbox"/>
	21. If yes, how is the growth impacting on WASH services being provided by NTC	1 2 3

PART 4: Recommendations

Recommendations	22. What recommendation would you put forward to fellow business partners to support	1 2 3
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	<p>NTC in improving service delivery?</p>	
	<p>23. What recommendations would you put forward to NTC to improve WASH services to informal traders?</p>	<p>1 2 3</p>

PART 5: Conclusion

Appendix 2: Interview guide for Norton Town Council Engineering & Housing department

I am a student at the Midlands State University, Zimbabwe pursuing a Masters in Development Studies and am carrying out a research entitled ‘**Impact of informal sector growth on water, sanitation and hygiene service provision: The Case of Norton Town Council in Zimbabwe**’

The information to be collected is for academic purposes only and your response will be kept strictly confidential and your names will not be published.

Thank you for your time

Name of Respondent:

Designation:

1. Approximately how many informal traders are operating at Katanga?
2. What forms of business ventures are they engaged in?
3. Does NTC have a system to recognise informal traders?
4. What WASH services does NTC provide to informal businesses?
5. Are there any WASH challenges that NTC is facing in providing services to informal businesses in Katanga?
6. Has there been an increase in the numbers of informal traders in the past 5 years? If yes, please indicate the annual increases?
7. How has the increase of the population of informal businesses impacted on the WASH service delivery to this category of people?

8. Does NTC have a system of revenue collection from informal businesses?
9. If yes, is the revenue collected commensurate with the services provided?
10. How does NTC deal with those who default in payment?
11. How does NTC deal with unregistered informal businesses?
12. Any suggestions on how NTC can regulate the operations of the informal sector

Appendix 3: Interview guide for Norton Town Council Health department

I am a student at the Midlands State University, Zimbabwe pursuing a Masters in Development Studies and am carrying out a research entitled ‘**Impact of informal sector growth on water, sanitation and hygiene service provision: The Case of Norton Town Council in Zimbabwe**’

The information to be collected is for academic purposes only and your response will be kept strictly confidential and your names will not be published.

Thank you for your time

Name of Respondent:

Designation:

1. What forms of business ventures are informal traders at Katanga market engaged in?
2. What WASH services does your department provide to informal businesses?
3. Are there any WASH challenges that NTC is facing in providing services to informal businesses in Katanga?
4. Has there been an increase in the numbers of informal traders in the past 5 years? If yes, please indicate the annual increases?
5. How has the increase of the population of informal businesses impacted on the WASH service delivery to this category of people?
6. Any suggestions on how NTC can regulate the informal sector