

## **ABSTRACT**

This development project addresses the rural water issues identified by the research project. The research project revealed that there is poor land use management in rural areas which has led to pressure on the few water resources. The ever-growing population in rural areas and the lack of proper water infrastructural investments in rural areas have led to water shortage and deficits leaving the rural population vulnerable. This dire situation then calls for planning intervention which ought to provide sustainable water infrastructure.

The main objective of this planning development project is to intervene water challenges in rural areas by providing adequate water supply and putting measures that would sustain its future needs.

The study then uses literature review to collect secondary data such as review of legal and policy documents. The study also does a site suitability analysis of the study area in relation to water needs.

The project proposes possible alternative measures which are opted to curb the problem of water supply and access in rural areas. Among these: source storage, treatment and distribution are chosen to be the plausible approach to drive this project to achieve its objective. This leads to a well conserved natural environment, utilization of natural resources e.g. solar energy, reduced water pollution and adequate supply with reduced water cost.

To see the project to its actualization, implementation schedule, phasing, costing framework and monitoring are prepared to ensure its access. The possible impact of this project will be a rural area driven by high socio-economic growth.



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## **CHAPTER ONE**

### **1.1 OVERVIEW**

Urbanization is the process whereby a group of people collectively settle in an area, eventually developing social institutions that comprise of business enterprises and government in order to support themselves. Due to the growing population, the formal sector might not be able to meet the employment needs of the population. Informal sector, at times also titled hidden, shadow, parallel, second, underground or black economy is defined by Hart (2008) as economic activities that take place outside the structure of fixed public and private sector establishments. According to Ihrig and Moe (2004) informal sector is a segment which creates lawful goods, but fails to conform to government regulations.

Road reserves have over time been encroached by human activities due to the high competition for space in the areas along roads. Small scale informal commercial activities have therefore been established in these areas with no security of tenure because the land is public land. Brown and Lloyd-Jones (2002) observed that prime locations for informal livelihood activities develop in public transport terminals, road junctions, market places and other places of high interaction with pedestrian and/or other traffic activities.

Transport has many benefits for both commercial and personal use. Activities located along road reserves have a comparative advantage of easy and therefore cheap access to the transport system which translates to increased profits (for commercial and industrial activities) due to the reduced cost of travel and more customers who include the everyday users of the roads. This phenomenon has led to the formation of corridors along transport routes which are characterized by highly intensive informal commercial and other roadside human activities along the road reserves with decreasing intensity of these activities as the distance from the road carriageway increases.

### **1.2 PROBLEM STATEMENT**

Planning for roads is part of planning for transportation. Road transport is the most commonly used mode of transport worldwide. Gitaru and Mwimuto road is a segment of the proposed Northern by-pass. Wangige town which is 18.4 km North of Nairobi. Komollo, (2012) notes that one of the major problem associated with informal activities is the conflict of use, between informal economic activities and designated uses, which fundamentally stems from absence of regulations, limited or no enforcement of regulations where they exist.

Wangige town has very many informal traders selling merchandise along the road reserves and at the bus terminus. This study sought to highlight the dynamics of trader-traffic flow land use conflict, in order to understand the impacts of traders selling along



the road reserves, proportion of traders that sell along the road reserves and the reasons why traders sell along road reserves and other unauthorized areas.

### **1.3 RESEARCH QUESTIONS**

- What proportion of traders in Wangige sell their products along the road reserve?
- What are the reasons for traders using the roads reserves and other unauthorized areas for trade?
- What is the impact of traders selling along the road reserve?
- What planning interventions can resolve the traders-traffic flow land use conflict?

### **1.4 GOALS AND OBJECTIVES**

- Estimate the proportion of traders selling along road reserves in Wangige Market Centre.
- Establish the main reasons for use of the road reserve for trade by informal traders.
- Determine the impacts of traders selling along the road reserve.
- Propose planning interventions that can resolve the traders-traffic flow land use conflict.

### **1.5 RESEARCH SCOPE**

The study will cover Wangige town, the area between Gitaru road and Mwimuto road. Wangige is a small town 18.4km from Nairobi. It is further up Lower Kabete Road situated in a well-watered place, strategically located near Nairobi. With geographical coordinates of 1.2203° S, 36.7132° E. Its located in lower-Kabete ward, Kikuyu sub-county, Kiambu county. Theoretically, the study will mainly focus on the informal traders-traffic flow land use conflict and the associated impacts.

### **1.6 JUSTIFICATION OF THE TOPIC**

In developing countries specifically Kenya, there has been little or no research done to identify some of the causes, impacts, benefits, advantages and disadvantages of the informal settlement. Lack of studies has left towns such as Wangige without a policy guide and regulation to manage informal activities along the road reserve. The lack of a policy guide has resulted to encroachment of road reserves within and outside Wangige town thus disrupting the smooth flow of transport.

The knowledge of the study will be useful to other small towns currently suffering the same problem. The lesson drawn from Wangige study will not only guide in planning of other informal urban development activities but also make significant contribution towards effective planning and management of urban development generally. Also, the outcome of this research is expected to contribute towards a regulatory framework for long the term appropriate for commercial development that replicates the livelihood strategies.

### **1.7 ASSUMPTIONS**

This study was carried out on the assumption that in the next five years the study area will experience population growth that the town will increase and it will be overwhelmed by the people accessing it for service provision and vendors. The county government will not have made any policy changes and planning interventions regarding the market.

### **1.8 DEFINITION OF TERMS**

**Food Access:** Individuals have adequate incomes or other resources to purchase or barter to obtain levels of appropriate foods needed to maintain consumption of an adequate diet/nutrition level.

**Food availability:** Sufficient quantities of appropriate, necessary types of food from domestic production, commercial imports or donors that are consistently available to the individuals or are within reasonable proximity to them or are within their reach.

**Food security:** Availability and accessibility of quality food at all time by all households.

**Market days:** Official market days designated for each market place

**Market Integration:** An indicator (s) that explains how much different markets are related to each other.

**Open-air markets:** Gazette market places with few or no permanent structure where sellers and buyers periodically meet.

**Local market:** Clients and customers who will buy a product in the region or area in which it is produced.

**Informal traders:** The non-registered, non-accounting and non-tax paying grassroots-based individuals or group of household members whose business practices are based on street vending or hawking but not limited to selling or providing small quantities of goods and services to an undefined market to earn a living.

**Traffic flow:** is expressed as the number of vehicles using the particular road per unit duration of one hour. It is measured using traffic counts made for a particular duration at one point on the lane stretch

**Transport land use:** is the movement of humans, animals and goods from one location to another.

## **1.9 ORGANIZATION OF REPORT**

**Chapter one:** It introduces the study, research problem which shows information gap. It also covers the research questions, research objectives, theoretical and geographical scope, justification and significance, assumption, definition of terms and finally organization of the report.

**Chapter two:** It covers literature review, theories on markets, challenges markets face globally, regionally, nationally and at a county level, factors that attract traders to road reserves globally, regionally, nationally and on a country level, policy interventions globally, regionally, nationally and on a country level, policies on markets, legislation and regulations and conceptual framework.

**Chapter three:** It's about research methodology. It reports on research design, target population, sample size, sampling plan, data collection methods, data quality control, data analysis, data presentation, ethical considerations and data needs matrix.

**Chapter four:** Study Area-Presents the geographical location of the study area through maps. It also provides the ecological, economic and social-economic profile of the study area.

**Chapter five:** Research findings-This chapter provides a comprehensive outline of the study findings, as guided by the study objectives and the various research instruments. It goes further and synthesizes the findings, and links them to the existing body of knowledge and literature concerning the informal sector enterprises.

**Chapter 6:** Problem issues and policy recommendations: The chapter highlights the emerging issues and problems, based on the synthesis of findings, literature and study area background. It then goes to provide policy recommendations that address the identified problem issues.

**Chapter 7:** Conclusion – This is the final chapter of the study. It offers an appraisal of the study by conclusion and identifying the intended benefits to the various stakeholders. It also provides the concluding remarks by the researcher, and areas identified for further  
s

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This chapter gives a general overview of the informal sector. It reviews literature on various definitions of informality, informal sector theories, and characteristics of informality, contributing agents of informality, impacts of informality on existing planned land uses and relevant government policies on informality and planning in Kenya.

### **2.2 INFORMAL SECTOR THEORIES**

#### **2.2.1 Location Theory.**

The central place theory is defined by using two concepts of threshold population and range of goods which were originally developed by Walter Christaller (Evans, 1987; Wood and Roberts, 2011). A central place which is accessible by transport facilities reduces transport costs and travel time which results in congestion of goods, services and people. According to Christaller central places are retail center's where selling and buying activities are taking place (Wood and Roberts, 2011). According to this theory, production factors, namely labor, capital and transportation costs denote the keys to understanding firms' location: firms tend to locate in such a way as to maximize profits. As noted by Acho-Chi (2002), in the developing nations population thresholds and the number of clients in a location can be used to illustrate the location of informal activities. Sites are located within cities in places where operators are enthusiastic to struggle for them, at the same time that clients are attracted to them, and discard the idea of moving to their places for the similar service. Central place theory provides an explanation on the hierarchy of Centre's and the location of various land uses within a given area. An estimate of 45 to 85 percent of the workforce is in the informal sector and street vendors represent a significant share of the workforce in the developing countries (WIEGO, 2002). Urban street trade occurs in various distributive forms and includes several products. It varies from fruits, food, bikes to trays mobile selling, stable vending practices from carts, to street table vending, wheelbarrows selling, trolls, temporary shade for example CDs, books, charcoal and clothing. Street vending in African cities often takes place in diverse parts of roads and streets. Most vendors tend to locate themselves at premeditated points with heavy human traffic, while others walk from one place to the other. They strategically locate themselves along main streets and roads, adjacent shopping centers or at corners where they are visible by motorists and pedestrians. Sellers settle in streets suddenly without any authorized allocation. Most street vendors in Africa have no approved sites of operation, which results in occurrences of skirmish and brutality between street vendors and urban authorities (Mitullah, 2003).

#### **2.2.2 Theories of existence of the informal sector**

There are studies that substantiate the persistence and growing tendency of informality in many Latin American countries and other developing nations (ILO, 1999, Gray, 1998).

##### **a) The Legalist School of Thought**

This school of thought was introduced by a Peruvian economist; Hernando De Soto. The school of thought focuses on informal enterprises and entrepreneurs. It reasons that, the informal operator runs the enterprise tactfully to his /her advantage thereby minimizing costs out of the urge to survive. Some of the costs include: taxes, registration and license, compliance with laws and regulations, higher rates for public utilities, evasion of fees and penalties, evasion of taxes and labor laws, lack of property rights, lack of enforceable contracts and not receiving benefits from formal.

Hernando De Soto (1989) pointed out that in many countries, especially poor countries, a heavy burden of taxes, bribes, and bureaucratic hassles drives many producers into an informal sector. Producers in the informal sector avoid much of this burden, but they must produce with less assistance from public services than is available to producers in the formal sector.

De Soto also noted that, micro-entrepreneurs would continue to operate and produce goods informally so long as government procedures are not affordable and burdensome in terms of absence of property rights, inaccessibility to productive resources like technology and finance. He is recognized for bringing informality into the public attention in terms of its potential. He argues that, the informal sector has the potential of not only to generate wealth, cut costs, and democratize politics but also to push out and substitute the first growing economy.

#### **b) The Voluntarist School of Thought**

This school of thought was championed by William Maloney (2004). The voluntarists emphasize on the self-employed, notably entrepreneurs especially male entrepreneurs and their informal enterprises. The proponents view informal economy as consisting of entrepreneurs who decide to function informally in order to evade costs such as; taxation, rental fees and electricity, commercial protocols and other costs of operating formally. It is comprised of informal operators who decide to operate informally or even criminally after contemplating the costs.

Distinct features in comparison to the legalist school. This school of thought does not blame the burdensome registration procedures but argues that informal is a thoughtful choice by entrepreneurs to enjoy benefits of informality. Costs of formality (avoided), payroll taxes and social protection contributions. Benefits of informality that is a way to make income while avoiding costs of formality.

### **2.3 Proportion of vendors in road reserves**

#### **Global Context**

##### **Study on street vendors at Patna, India.**

NIDAN did an estimated survey of street vendors in Patna. The objective of this survey was to estimate the number of street vendors along with the type of street vending. They found that the total number of vendors is approximately 28432. Out of the total 78.2% vendors were male while 21.8% are female. The percentage of static vendors is 87.2% and 12.8% were mobile vendors, who carry their items on the head, by cycles and thalis. Among static vendors we find that 78.2% are male however 21.8% are female vendors. Among mobile vendors 78.1% were male and 21.9% were female. Out of the total 31.6% street vendors were engaged in vegetable vending, 15.5% were fruits vendors, 11.2% were doing non-vegetarian item, 9.2% were selling readymade clothes and 16 % are food

vendors. A large no. of vendors was engaged in trade of miscellaneous items like toys, leather goods etc. and many of them were self-employed as cobbler, porter, barber, etc. The miscellaneous section accounts for approximately 16.5% of the total number of vendors. The main thing, we observed was that the largest concentration of vendors is in the age group of 22-60 years.

### **Regional context**

#### **Study of resilience of street vendors in Aba, Nigeria.**

Street vendors in Aba were mainly young people including children – those within the age groups of 8 to 17years (46.2%) and 18 to 30years (41.1%). However, about 9.9% of the street vendors fall within the age group of 31 to 50years. The survey also showed that 66.8% of the vendors either did not go to school or managed to acquire basic education (up to secondary school level) while a smaller percentage obtained some tertiary level education, with those that obtained degree or higher certificates comprising about 8.1% of the total population of vendors. Up to 62.2% of the vendors had been in the business for less than 5years, as compared to 37.8% who had operated for upwards of 5 years. This shows that more people are joining the business of street vending in Aba. Majority of the vendors (over 73%) operate with capitals less than N50,000 (about \$110), while just about 9.4% have up to N100,000 (\$220) as operating capital.

### **Local context**

#### **Sagana bus terminus**

57% of the traders in the study area prefer to operate from the Sagana bus terminus area. Still, they do not have any other business site that they obtain income from, as such; they are satisfied with this location and would like to continue operating from here rather than from the Kayole market area where they complain that there are no customers.

## **2.4 Reasons for vendors to use roads and unauthorized areas for trade**

These businesses that compromise the informal sector typically operating on streets and along the roads are often seen as an eye-soar and undesirable activities. Thus conflicts arise between urban authorities trying to manage the city and the urban informal sector operators who need space for their activities.

### **Case study of China**

- It is a way of providing a basic living for many migrants in China. Without it, many would slip into poverty and some would turn to delinquency.
- Through selling on road reserves street vendors provide cheap commodities and meals to the rest of the migrant population that is too poor to buy other goods.
- Street vendors using road reserves have potential of succeeding in expanding their business and becoming integrated into the city's social fabric. Beijing's "mantou" street vendors may be only a local version of the American lemonade stand, but a successful street stand may turn into an official shop.

### **Case study of Nairobi**

According to the Kenya National Bureau of Statistics 2017 projections, the city has a population of four million with over 60 per cent locked in the informality, informal sector

and informal settlements. This population is either intermittently employed, underemployed or unemployed but faced with numerous needs that they must fulfill. Man must live and eat. As a nation with a celebrated rights-based constitutional dispensation, criminalizing the pursuit of economic wellbeing is the greatest travesty that must never be meted on the noble citizenry. Street vendors are drawn to roads as sites of social and livelihood opportunity. The power and attraction of cities is closely tied to the economic opportunities that they often provide. Successful and sustainable cities tend to create wealth for their elite and livelihood opportunities for others.

## **2.5 Impacts of informal sector**

Informal sector plays a key role in the urban economy. Rather than seeking to eliminate their presence, urban planning should seek to accommodate this important component of urban economies. The growth of the urban informal sector was also nourished by the influx of migrants from rural regions surrounding urban agglomerations in search of work. With the formal sector unable to accommodate such large numbers of workers, the informal sector becomes the primary source of employment. Without the economic opportunities generated by such activities the poor would certainly become a larger burden for the urban authorities. The most notable impacts of informal sector are:

- **Traffic congestion:** Congestion is one of the most prevalent transport problems in urban areas. Especially in areas where the informal sector link with transportation land-use its worse. Congestion comes as a result of traffic generated by vendors who sell along road reserves, their customers and the vehicles during rush hours.
- **Parking difficulties:** Vehicles most of their time are parked. These parking spaces are occupied by vendors thus creating a space consumption problem.
- **Difficulties for pedestrians:** Difficulties are because of a blatant lack of consideration of pedestrians in the physical design of facilities and also the street vendors occupy the available pedestrian paths.
- **Reduction of public space:** Majority of roads are publicly owned and free of access. Increase in traffic has an adverse impact on public activities which once crowded the streets such as markets. These have a gradual disappearance to be replaced by informal sector.
- **Environmental impacts:** Pollution including solid waste generated by the vendors has become a serious impediment to the quality of life and even the health of urban population.
- **Accidents and safety:** The growing human and vehicle traffic in areas like Wangige has been linked to the number of accidents and high fatalities.

## **2.6 Policy interventions on informal sector**

### **2.6.1 REGULATION**

#### **Kiosks**

Planning for kiosks and hawking needs to be considered as a special feature in planning. Locational factors determining their siting are:

- Accessibility
- Market demand
- Foot loose character of hawking

According to the Physical Planning Handbook, 2008 the minimum size of a kiosk should be 3m by 3m. However, due to the increasing demand for market space, modern day kiosks have a minimum of 2m by 2m to allocate more users. Designated sites for kiosks need to be planned for. Further, they should be located adjacent to bus parks, open air markets and certain institutions.

#### **Planning and design standards**

According to the metric handbooks, the key considerations when planning for markets are:

- Vehicle parking and loading (near stalls)
- Garbage storage and collection
- Washing facilities
- Protection of exposed food

#### **Road reserves protection (The Traffic Act (Revised Edition 2014))**

**Section 91** provides for the protection of road reserves against unlawful encroachment. It states that:

Every person who, without the written permission of the highway authority—

- (a) Encroaches on a road or on any land reserved therefore at the side or sides thereof by making or erecting any building, fence, ditch, advertisement sign or other obstacle, or by digging thereon or by planting or sowing any tree, shrub or seeds thereon; or
- (b) Deposits or causes to be deposited in any manner whatever on a road any material or matter, other than road-making materials deposited for the purpose of making up or repairing the road; or
- (c) Digs up, removes or alters in any way the soil or surface of a road, or of any land reserved therefore at the side or sides thereof, or if done for the purpose of moving a vehicle without immediately thereafter making good the damage; or
- (d) Willfully fills up, alters or obstructs any ditch or drain, whether on a road or contiguous thereto, made by or under the control of the highway authority, to carry water off the road or to keep it from flowing on to the road; or
- (e) Allows any sludge or any filthy or noisome matter to flow from any building or land in his occupation on to a road or into any ditch or drain made by the highway authority; or
- (f) Causes or allows any timber, sledge, plough or other heavy material, vehicle or implement not wholly raised above the ground on wheels to be dragged on a road; or
- (g) Pitches any tent, booth or stall on a road; or
- (h) Makes any fire on any road,
- (I) Shall be guilty of an offence.



(2) It shall be lawful for the highway authority to remove anything whatsoever which has been placed or erected on a road or land reserved therefore in contravention of this section.

## **2.6.2 LEGISLATION**

### **The Constitution of Kenya 2010**

The constitution is the supreme law in Kenya and it came into effect in the year 2010 after its promulgation. According to the constitution, the county government is mandated with

- a) Markets
- b) Trade licenses
- c) Fair trading practices
- d) Local tourism and
- e) Cooperative societies

### **The County Government Act**

This is a decentralized arm of the government that is provided for under Article 176 of the constitution with autonomous power given the mandate of planning at its level of jurisdiction. The county government is mandated to integrate economic, physical, social, environmental and spatial planning.

In article 110 of this act, the county government is mandated with the responsibility of spatial planning and identifying areas where strategic intervention measures can be taken. It is with the planning framework of the county government and zoning plans of towns that markets can be handled

### **Public Health Act**

The act directs that no person shall cause a nuisance or be in charge of a nuisance that may be regarded as injurious to health. At the same time, it charges the local authority to be in charge of taking all lawful and reasonable measures to ensure that its districts is within healthy and sanitary conditions. In article 117, it states that, it shall be the duty of every health authority to take all lawful, necessary and reasonably practicable measures for preventing or causing to be prevented or remedied all conditions liable to be injurious or dangerous to health arising from the erection or occupation of unhealthy dwellings or premises, or from overcrowding, or from the construction, condition or manner of use of any factory or trade premises, and to take proceedings against any person causing or responsible for the continuance of any such condition.

### **Environmental Management and Coordination Act**

The act insists on the need for environmental sustainability. This is especially in the light of degradation. This act aims at promoting safe, clean and healthy environment. Sections (4) and (7) provides for the establishment of environmental conflicts and the national environmental management authority (NEMA) respectively as the institution responsible

for the execution of the requirements stipulated in the act in relation to policies related to the environment. Some of the restricted activities in the act include erection, reconstruction, placement, alteration, extension, renewal or demolition of any structure or part of any structure on land. Section 58 requires that every development project likely to have impact on the environment to undergo an Environmental Impact Assessment (EIA).

### **City Bylaws**

Concerning the informal sector, the Nairobi city by-laws make provisions that:

- a) No persons shall participate in any business at any premises within the control of the county unless such premises are allowed for the purpose.
- b) Any individual without a legal permit or hawk in undesignated area jeopardies having their goods confiscated.
- c) Throwing away and burning of any waste in an unsuitable place is an offense
- d) Any duly authorized officer may scrutinize a residential dwelling or trade premise at any time.
- e) Dropping any type of waste on the street is a crime
- f) Any individual operating a business must obtain a business permit by the 31st March of current trading year or maybe guilty of an offense.

### **Micro and Small Enterprises Act No.55 of 2012**

The legislation was enacted to provide the management and regulatory framework for the informal sector enterprises, and to address the promotion, development and regulation of the sector.

The objectives of the MSE Act include: provision of a supportive business environment, simplification of business development services; formalization and elevation of informal micro and small enterprises; encouraging an entrepreneurial culture and representative associations.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter covers the methodology procedures that were used in data collection, interpretation and analysis. It included the research design, target population, sample size, sampling plan, data collection methods, data quality control, data analysis, data presentation, ethical consideration and data needs matrix.

### **3.2 Research design**

Research design is the plan used to carry out the whole process of research. Design is classified into two broad categories which include experimental and non-experimental designs. To achieve the objectives of this study, the research used survey or cross-sectional design. This includes gathering data from the target population/respondents at one time at around the same time.

### **3.3 Target population**

According to 2009 national census, Kikuyu sub-county had a total population of 265,829 persons 130,370 being male and 135,459 females. The population density is 1,126 per square kilometer. The target population for the study included all traders in Wangige town selling along Gitaru and Mwimuto road.

### **3.4 Sample size**

A sample for this purpose is a small part of the population selected for observation or analysis. By observing the features or characteristics of a cautiously selected representative sample, one can make certain inferences about the characteristics of a population from which it is drawn. The researcher used a sample size of 50 respondents drawn from the target population of the operators of informal economic activities in Wangige town on Gitaru and Mwimuto road.

### **3.5 Sampling plan**

#### **Simple Random Sampling**

Simple random sampling is the purest and the most straightforward probability sampling strategy. It is also the most popular method for choosing a sample from among the population for a wide range of purposes. In simple random sampling each member of the population has equal chance to be chosen as part of the sample.

#### **Advantages of Simple Random Sampling**

- (i) If applied appropriately, simple random sampling is associated with the minimum amount of sampling bias compared to other sampling methods.
- (ii) Given the large sample frame available, the ease of forming the sample group i.e. selecting samples is one of the main advantages of simple random sampling.
- (iii) Research findings resulting from the application of simple random sampling can be generalized due to representativeness of this sampling technique and no bias.

### **Disadvantages of simple random sampling**

- (i) It is important to note that application of random sampling method requires a list of all potential respondents (sampling frame) to be available beforehand and this can be costly and time-consuming for large studies.
- (ii) The necessity to have a large sample size can be a major disadvantage in practical levels.
- (iii) This sampling method is not suitable for studies that involve face-to-face interviews covering a large geographical area due to the cost and time

<b>Items</b>	<b>Number</b>
Hats	2
Bags	2
Jeans	3
Belts	1
Fish	1
Dresses	3
Night dresses	1
Petroleum jelly	1
Kids toys	1
Shoes	3
Compact disk	1
Smokie	2
Mango	2
Other fruit	3
Insecticides	1
Drums	1
Inner wears	2
Kids clothes	3
Adult clothes	3
Socks	2
Swimming wear	1

**Table 1: Sample plan**

### 3.6 Data collection methods

Data on the cause and effects of informal activities on road reserves in the area will be obtained through administration of questionnaires to traders. This data was also used to evaluate the proportion of vendors on road reserves and in evaluation of the interventions necessary for solving traders-traffic land use conflict.

The main data collection method that was used was interviewing. This included face-face interviews with traders along the road and key informant interview. Instruments used were questionnaires and key informant interview schedule.

Photography and observations were among the methods used to collect data. The number of market days was also recorded.

### 3.7 Data quality control

The researcher used the checklist below.

- **Where** the data was collected: location (preferably stall number)
- **When** the data was collected (date and time)
- **How** the data was collected (e.g. sampling methods, instrument types, analytical techniques)
- **How** you refer to the data (if retail or wholesale)
- **Who** collected the data (name of the interviewee)?
- **What** has been done to the data (e.g. details of processing and data analysis)

### 3.8 Data analysis

The research instruments were examined to ensure that they have been completed correctly and consistently. The data was then coded and a summary of tables prepared for all the responses. Secondary data was keyed in an excel sheet. Statistical analysis including computation of averages, frequencies and percentages was done using SPSS. Nearest neighbor's indices was computed using the nearest neighbor statistic as described by Henkel (1979).

### 3.9 Data presentation

Data presentation methods that was used constitutes percentages, mean, table and charts. Also it will be presented using photographs, sketches, illustrations and maps.

### 3.10 Ethical considerations

The data collected is used for academic purposes only and high levels of the respondent's confidentiality is highly observed. The researcher explained to the

respondents about the research and that the study was for academic purposes only. It was made clear that the participation was voluntary and that the respondents were free to decline or withdraw any time during the research period.

Respondents were not coerced into participating in the study. The participants were informed to make the choice to participate or not. They were guaranteed that their privacy would be protected by strict standard of anonymity. Other principles such as autonomy, beneficence, justice and fidelity was also observed (Mugenda, 2003).

### 3.11 Data need matrix

**Table 1. Data need matrix**

<b>OBJECTIVES</b>	<b>TYPE OF DATA</b>	<b>METHOD OF DATA COLLECTION</b>	<b>RESPONDANT</b>	<b>INSTRUMENTS USED</b>
<b>To determine the proportion of traders in Wangige sell their products along the road reserve</b>	Primary data	Administering of questionnaire Administering interviews	Vendors Town council	Questionnaires Interviews schedule
<b>To identify the reasons for traders using roads and other unauthorized areas for trade</b>	Primary data	Administering interviews. Field survey	Vendors	Questionnaires
<b>To investigate impact of traders selling along the road reserve</b>	Primary data	Field survey administering questionnaires administering interviews	Vendors Town planner	Questionnaires Interview questions
<b>To investigate the existing planning measures put in place to try and resolve the traders-traffic flow land use conflict</b>	Primary data sources Secondary data sources	administering interviews Journals	Town planner	Physical planning Act

## CHAPTER FOUR: STUDY AREA

### 4.1 Overview



This chapter provides a summary for the locational context of the research area ranging from the analysis of the project area in accordance to the physical/ landscape or topographical aspects, natural environment characteristics such as rainfall, wind, drainage, soils and climatic conditions

It also discusses the population and demographic characteristics of the project site including; socioeconomic, cultural and political profile of the currently existing catchment population to the project site.

#### **4.2 Location of the study area.**

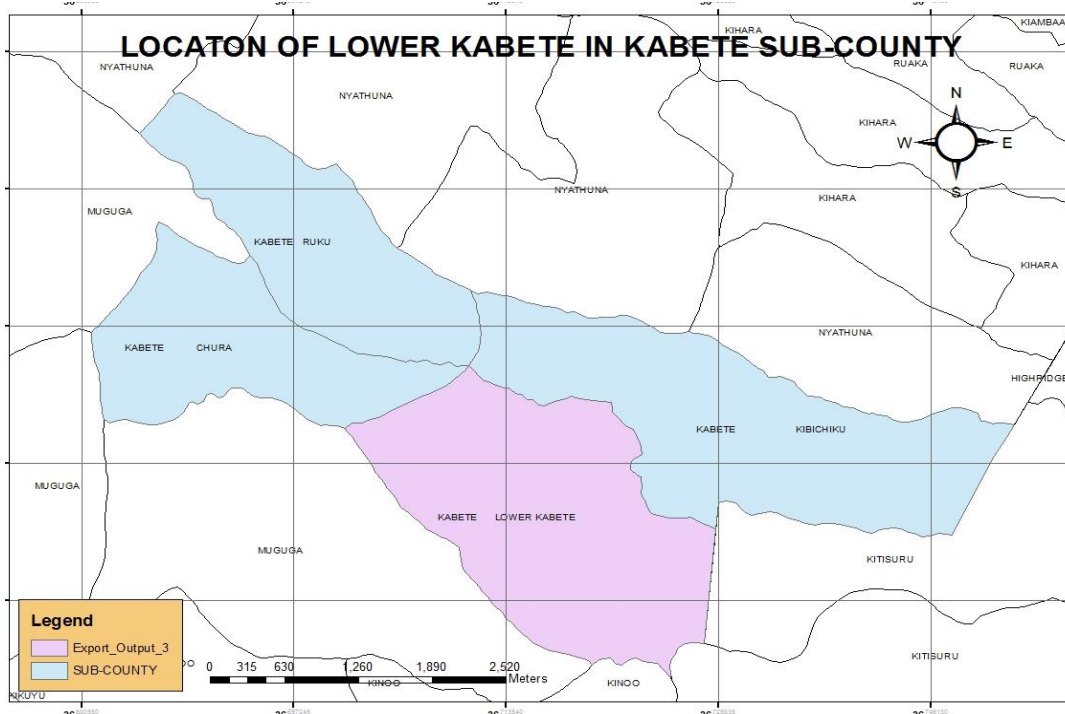
Kiambu is one of the counties established under the Constitution of Kenya, 2010. The county is surrounded by Nairobi County on the Southern side, Machakos County on the eastern side, Nyandarua on the western side and Nakuru County on the Northern side. In terms of the position of the County in relation to Kenya, Kiambu occupies an area of about 2,543.5 Km<sup>2</sup> with 476.3 Km<sup>2</sup> under forest cover according to the 2009 Kenya Population and Housing Census. Wangige is found in Kabete sub-county of Kiambu county. Kabete area is 60.3 Km. It has four wards; Ruku, Chura, Kibichiku and Lower Kabete. Wangige is found in lower Kabete. Kabete has thirteen sub-locations.

The density is 2916 km. According to 2009 census and the 2017 projection the population has 89,199 females and 86,626 males. The number of eligible voters is 88,761.

The Kenya National Highway Authority has a proposed Western bypass which is a four lanes highway measuring 16.5 kilometres with a design speed of 100 kilometres per hour. It will connect with the southern bypass at Gitaru and northern by bypass at Ruaka. It has been identified as a link necessary for the completion of a system of ring roads around Nairobi city aimed at easing traffic in the Central Business District.

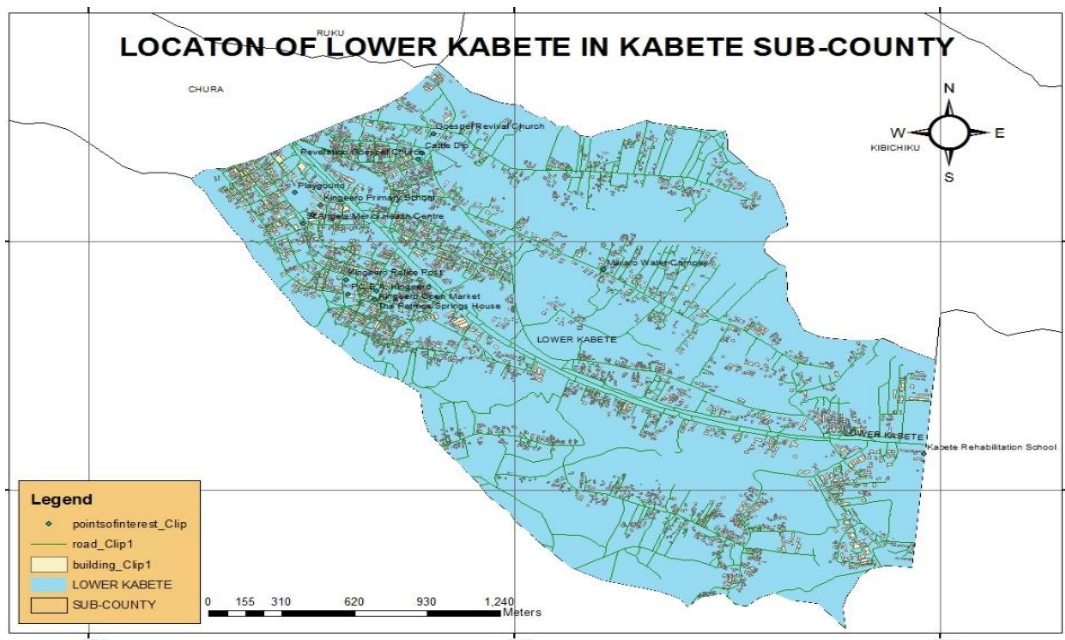
Map 1. Kiambu base map





Source: fieldwork 2019

Map 3: Location of buildings and road in Kabete



#### 4.4 Physical and natural environment characteristics Topography

The area is within Lower Midland and Highland zone with wide spaced parallel ridges. Plateaus and high – level structural plains characterize it and its altitude ranges between 1,500 and 1,800m above sea level.

### **Vegetation**

Trees are used mainly for shade, boundary demarcation, fencing, and production of fruits, timber fuel wood and for ornamental purposes. Common trees in the area include: Eucalyptus spp, Markhamia lutea, Cupressus lusitanica, Bischofia javonica, Croton megalocarpus and Pinus patula. Common fruit trees are Persea americana, Syzygium guminii and Eryobotria japonica. Shrubs include Lantana camara, Tethonia diversifolia and Solanum incanum. Animals in the sub-county are mainly domestic animals such as cattle, sheep, goats, pigs and poultry. There are no animals or resources of wildlife and tourism importance.

### **Geology and soils**

The principal rocks distinguished in this area are basalts, basaltic agglomerates (autobreccias), trachytes, phonolites, pyroclastic rocks and lacustrine deposits. Soils resulting from tertiary volcanic rocks are dark reddish brown, well drained. The area is mainly covered by the volcanic footbridges and plateaus soils. Soils on volcanic footbridges are of moderate to high fertility and are found in most parts of the sub-county. They are well drained, red to dark brown friable clays.

### **Climate**

The area lies mainly in the sub – humid and semi-arid climate with small pocket of humid climate around. The rainfall pattern is bimodal with the short rains occurring between October and December and the long rains between April and May. A mean annual rainfall of 969mm, as per record at the Muguga KARI Meteorological station is recorded. The temperatures vary between a mean maximum of 21 C and a mean of 11 C. The annual mean evaporation rate in the project area recorded is 1,721.

### **Hydrology and drainage**

The occurrence of the ground water in the area depends mainly on the varied rock conditions, physiographic nature of the area, the permeability and porosity of the rock formation as well as the weathering extent. Aquifers in the area comprises of weathered and fractured zones as well as buried channels on old land surfaces.

## **4.5 Culture of the study area**

The 2009 population and housing census established that 83% of the population were

Christians while 11% were Muslims. The remaining 6% belonged to other religions including Hindu, Traditionalists among others. In the project area, Christianity is the only religion that is practiced widely.

The most dominant community in the County is the Gikuyu, their social and cultural practices are pre-dominant. In particular traditions and culture of land inheritance has an effect on land resources use and management. The practice of land inheritance has led to continuous sub-division of land to uneconomical sizes. Moreover, the extractive nature in their livelihood has led to environmental degradation. There is a general perception that nature's wealth is infinite.

Social and cultural traditions in the society are also affecting politics, religion, education which in turn are influencing existing economics and environmental conditions in the county. The culture has both positive and negative influence on development. Positive influence on development is attested by their attachment to land and work ethics. The Gikuyu till their land for domestic consumption and surplus crops traded to neighboring less productive areas and urban areas to create wealth.

The Gikuyu traditional governance through ‘*ciama*’ allowed for consultations and participation in decision making. The *ciama* were responsible for setting up independent schools and inculcated social responsibility through informal education and religion. Learning and the acquisition of knowledge and skills for making implements were also emphasized.

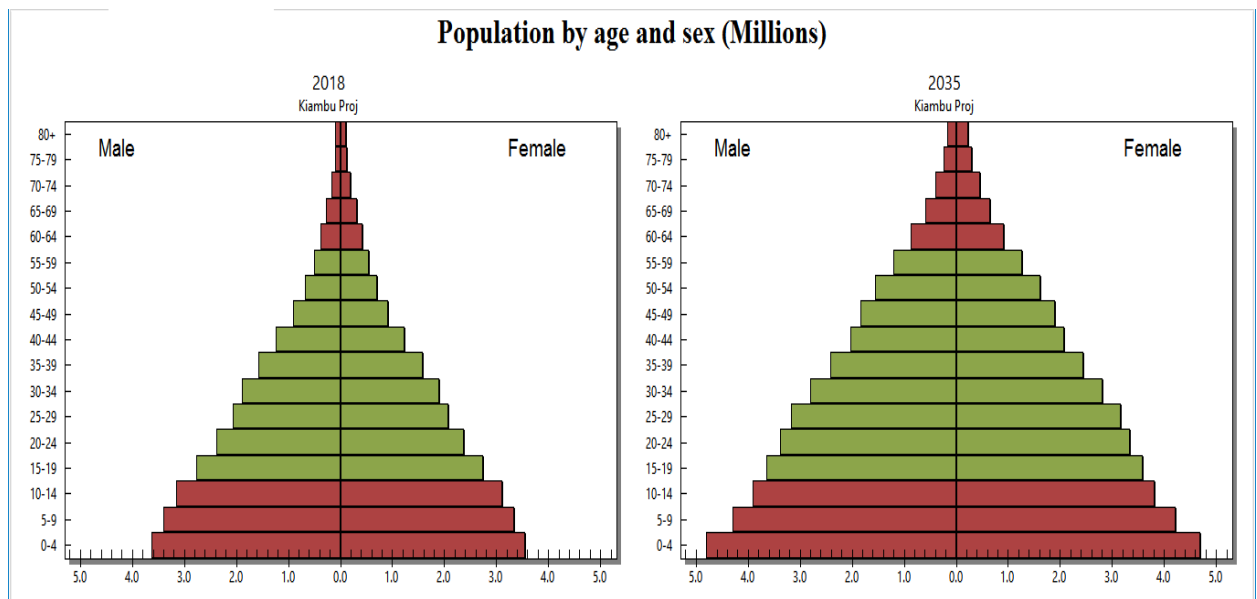
## **4.6 Population and demographic characteristics**

### **4.6.1 Population characteristics**

#### **Population size**

Kabete Constituency has the highest population density which currently is 2,534 persons/Km followed by Kiambaa Constituency which has 2,153 persons/Km. This is due to their proximity to the city of Nairobi. The least densely populated constituency is Lari with 307 persons/Km, mainly due to the fact that a considerable part of the constituency is covered by forests. High population density exerts pressure on the available land leading to subdivision of land into uneconomical units.

#### **Graph 1: Population projection**



Source: Fieldwork, 2018-2019

### **Population structure and composition**

In ages 0–4, and 5–9, the population of males is more than that of females while from age 10 to age 30 years’ females are more than males. However, from age 30 to 60 years, the population of males is more than that of females. This could be attributed to the fact that the county is in close proximity to Nairobi and thus there is an influx of people in this age group who work in Nairobi but reside in Wangige town.

### **Labor force (15–64 years)**

In 2009, the labor force in the county was 961,261, which comprised of 475,149 males and 486,112 females which translates to 59.2 percent of the population. It was projected to rise to 1,036,128 in 2012, 1,116,826 in 2015 and 1,174,087 at the end of 2017. With the steady growth of the labour force, there will be a major challenge of creating employment opportunities especially in the formal sector. Employment in the formal sector has been on the decrease with the only major employer being the informal Jua Kali ‘sector.

### **Wage earners**

The County has 902,848 persons who are wage earners representing 51.6 per cent of the total households' income in the county. These people are either skilled or unskilled and most of them are employed in coffee plantations, tea farms, industries, quarry sites and other agricultural farms. In order to ensure the county 's economy remains vibrant there is need for expansion of the job market to ensure great percentage of the population becomes wage earners.

### **Self employed**

Due to the dwindling availability of formal jobs in the county, most of the people have reverted to self-employment which contributes to 31 per cent of households' income in the county. In rural areas, 157,473 persons are self-employed whereby they engage in agricultural activities for their livelihoods. On the other hand, 384,935 of the persons in urban centers are self-employed, having set up businesses and small scale industries.

### **Unemployment levels**

Employment in the formal sector has been on the decrease with the only major employer being the informal *JuaKali* sector. It is estimated that 17 percent of the population is unemployed. This can be attributed to the high rate of population growth estimated at 3.4 per cent. The labour force is growing rapidly, whereas employment opportunities are scarce, more so, in the formal sector.

## **4.6.2 Demography characteristics**

### **Mortality**

According to the 2009 population census, the County's mortality rate stands at 48/1,000 whereas infant mortality rate stands at 58/1,000 against the national figure of 74/1000. This is lower than the national infant mortality rate and this is attributed to the high rate of delivery at health institutions which stands at 80.4 per cent.

### **Morbidity**

The most prevalent diseases in the county are flu which accounts for 35.3 per cent of the total hospital visits, malaria accounts for 18.6 per cent of the total hospital visits, Respiratory Tract Infections (RTI) at 9.7 per cent, and Ear Nose and Throat (ENT) infections account for 3.1 percent of hospital visits.

### **Literacy Levels**

The percentage of people within the county who can read stands at 95.6 per cent while 3.8 per cent of the total population cannot read. Also, 95.2 per cent of the total population can write while 4.2 per cent cannot write. About 95.4 per cent of the total population within the county can read and write while 4.6 per cent cannot read and write. The high literacy rates are as a result of continued investment in the education sector and there is need for more investment to ensure the literacy levels get to 100 per cent.

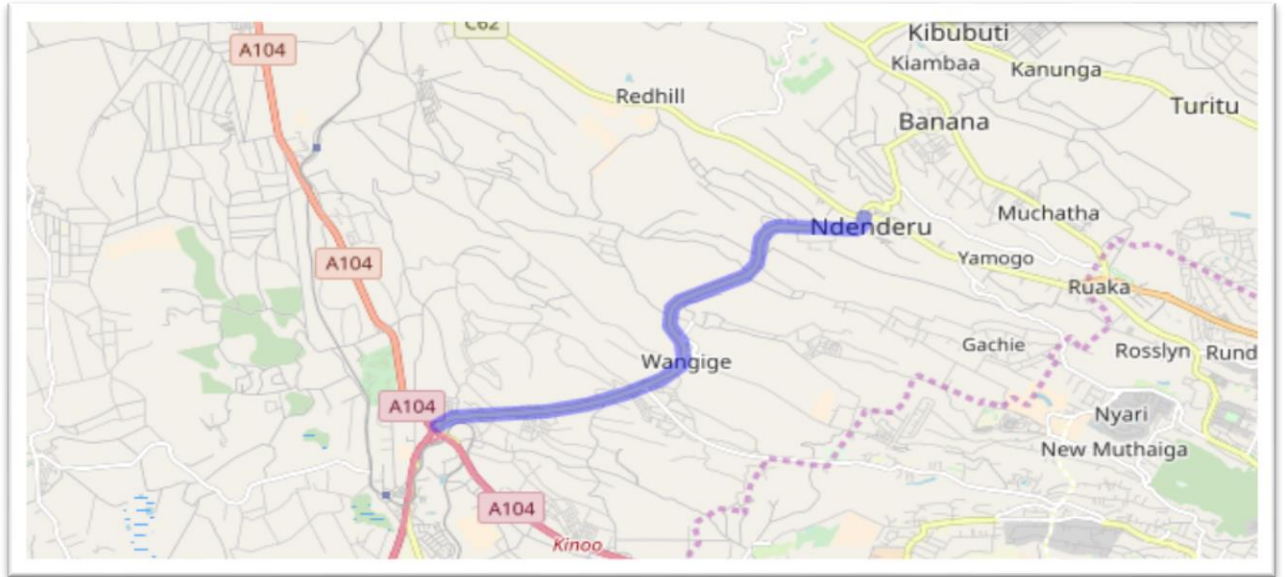
### **Poverty Levels**

The major factors which contribute to poverty are: rising unemployment, high cost of agricultural inputs, population pressure, poor yields, low agricultural produce prices, poor infrastructure, lack of credit, rise in HIV and AIDS, and insecurity. The poverty level in the county is estimated at 21.75 per cent.



## Roads

Plate 1: gitaru road



Source: Google map

Plate 2: Mwimuto road



Source: Google map

## **Wanginge market**

Wangige market started in the colonial era. Back in those days it was more of a traditional market and now it has grown into an urban market servicing the neighboring towns, Nairobi and other regions. It has mainly grown through the sale of eggs by vendors. Most of the vendors' sale eggs on wholesale and the people who sale to them bring them to the market mainly on market days which are Monday and Thursday. But even during other days of the week except Sundays the market is always operating. Some of the vendors selling outside move from one market to another depending on market days.

The market space is exhausted hence making it inadequate and ineffective in accommodating the large number of traders. This has prompted the hawkers and some other traders to seek for customer base along the Gitaru and Mwimuto road, resulting in occupation of the spaces found along the road reserves.

### **Plate 3: inside Wangige market**



**Source: Fieldwork 2018-2019**

## **CHAPTER FIVE: RESEARCH FINDINGS**

### **5.1 Overview**

This chapter presents the field findings in form of bar graphs, pie charts, pictures and narratives for better interpretation. The issues to be covered in this section are proportion of traders selling along road reserves in Wangige, main reasons for use of the road reserve for trade by informal traders and the impact of traders selling along the road reserve.

### **5.2 Proportion of traders selling along road reserves**

The total number of traders in and outside the market is approximately 2000. The County Council give out receipts to vendors after payment. They didn't have the exactly number of vendors but they gave a rough figure. Vendors outside the market who sell along Gitaru and Mwimuto road are about 400. The percentage of vendors outside the market is 20%.

#### **Plate41: Vendors selling on road reserve**



Source: fieldwork 2018-2019

### **5.3 Reasons for using road reserves**

Most vendors in other towns use road reserves because of the traffic are their customers but in Wangige the situation is different. Wangige market is over utilized. There is no space to accumulate the growing number of vendors in Wangige. Hence the vendors move to the road reserves. The customers in the traffic come us a bonus. Many of the vendors complain that the weather is quite a challenge because most of their goods get destroyed. Mainly who benefit from the traffic along the roads sell goods by moving from one place to another. Their products are easy to carry which include snacks which they hawk from one car to another.

#### **Plate 5: Congested Wangige market**



Source: fieldwork 2018-2019

### **5.4 Impact of traders selling along the road reserve**

**Blockage of traffic and encroachment of road reserves:** Vendors have encroached the road reserves and they on the area set aside as parking space to sell they goods.

**Lacking of parking space:** Vendors use the space for parking making it hard for persons with vehicles to access the area.

**Intruding into bus stop:** Some of the vendors use the bus stop to sell goods to people using the matatu mode of transport. The goods they sell include smokies, snacks such as sweets, biscuits and fruits.

**Improper waste disposal:** The vendors and their customers throw litter on the roads and the road reserves. Despite the efforts of the town council to clean there is still litter in the area. Also the town council has a container where they throw the litter. It's just outside the market entrance and the county council collects twice a week. Most of the days the containers are full. It destroys the beauty of the area, causes pollution and produces bad smell.

**Insecurity:** The people who have temporary structures have to hire security guards at night to watch over their goods like charcoal from being stolen.

**Loss of revenue:** Vendors who move from one place to another selling goods and don't pay any fee to the town council for using the space. Therefore, the council loses revenue.

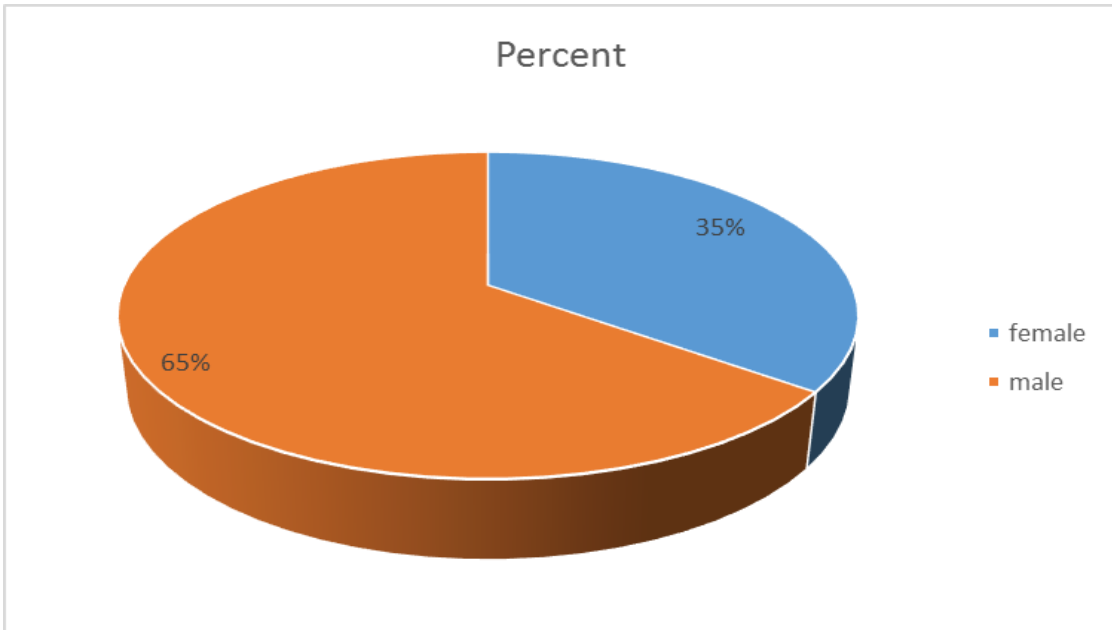
**Hindrance of policy implementation:** The vendors know that it's not right to sell along the road reserves but because of overutilization of the market space and they have to earn a living to support their families they use the road reserve. This makes it hard for the county Government to implement the policy.

## **5.5 Demographic and socio-economic characteristics**

This section will examine the demographic and socio-economic features of the respondents in the study area.

### **5.5.1 Gender and marital status of respondents**

From the findings, the majority of informal operators are married, this implies that informal livelihood activities are important for families. Men have the highest percentage compared to women. Previous studies affirm the dominance of male in informal sector (ILO, 1972).

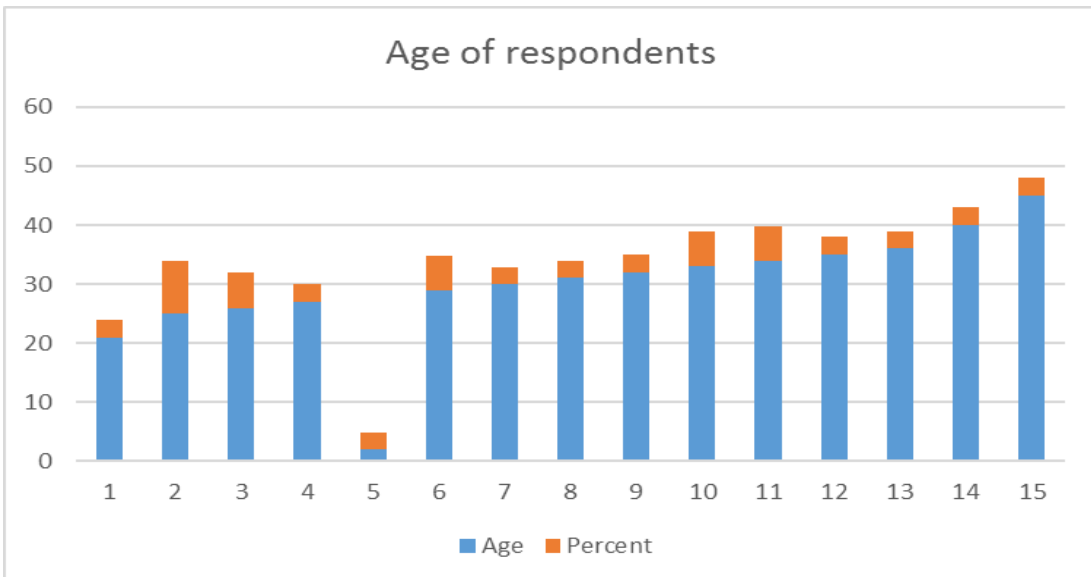


**Chart 1: Respondents gender**

**Source: Fieldwork 2018-2019**

### 5.5.2 Age of the Respondents

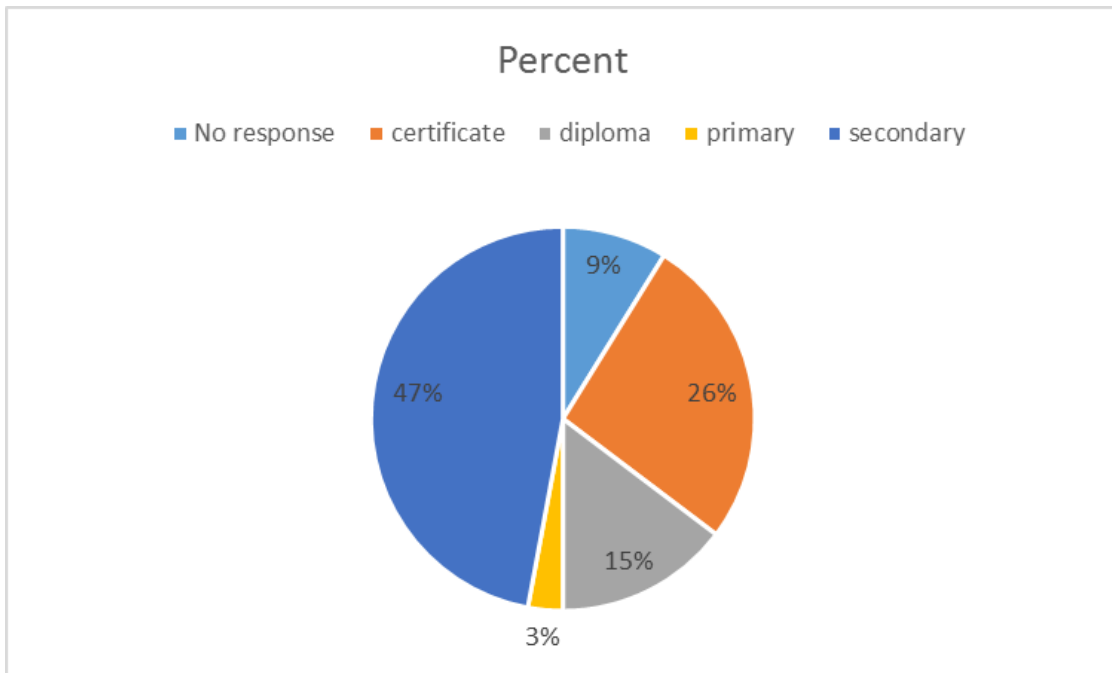
Graph 2 shows vendors between 35-45 are 11.6%, 30-34 are 8.7% and 28-26 are 11.7%. 38.2% of the vendors were not comfortable with giving out their numbers. 34 and 29 years are 5.9%, 8.8% are 23 years and vendors 21 years of age are 2.9%.



**Graph 2: Age of respondents**

**Source Fieldwork 2018-2019**

### 5.5.3 Education Level



**Graph 3: Respondents level of education**

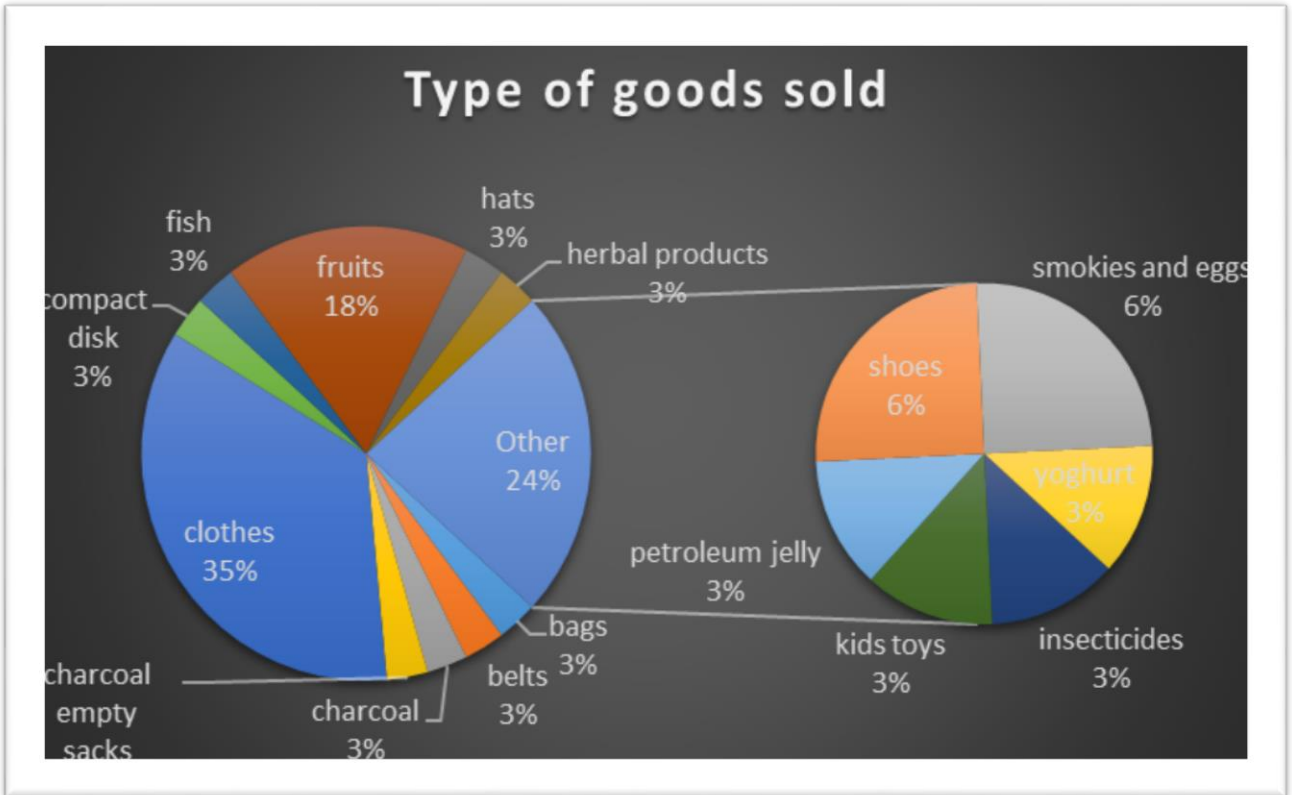
**Source: Fieldwork 2018-2019**

The findings revealed that a high number of the respondents have received formal education. The sector is absorbing a large proportion of educated people who should otherwise have been absorbed in the formal sector and therefore reiterate the importance of the sector in employment creation

### 5.6 Types of Goods and Services

The informal business offers a wide range of goods and services, with the most common good being second hand clothes. Others include perishable fruits.

**Plate 6: vendors selling clothes**



**Chart 2: type of goods respondents sell**  
**Source: fieldwork 2018-2019**



## 5.7 Structures Typology

The findings from the field revealed that a high proportion of 86.7% of the informal businesses operate in temporary structures. This is against 4.8% who operate in permanent structures, 3.8% operate in open space, 2.9% in mobile structures and 1.9% have no structures at all.

### Plate 7: Temporary structures



Source: fieldwork 2018-2019

## 5.8 Availability of packing space

Vendors and customers in Wangige do not have access to parking services. This is mainly due to their nature in terms of location of operation, mainly along road reserves and the area set aside as parking area.

**Plate 5: lack of packing space**



Vehicles have to find a place where vendors are not close to road

**Source: fieldwork 2018-2019**

### **5.9 Key challenges facing vendors**

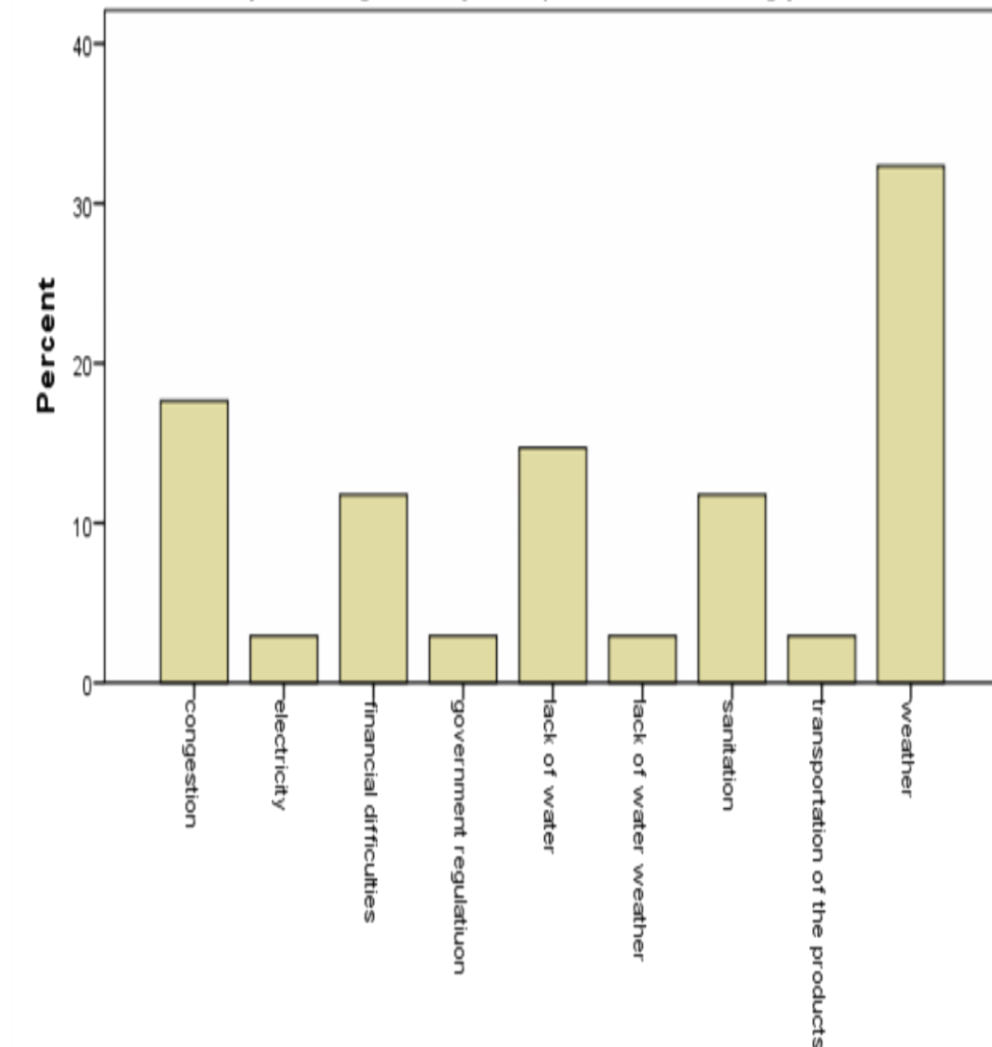
Various challenges were identified from the study. They include the following:

**Lack of footpaths:** During the construction of roads footpaths were not constructed and are yet to be constructed. These has forced pedestrians to use the main road since the space they would have used has been occupied by formal and informal activities. This has led to congestion.

**Weather:** Vendors selling in open space with no structures and shelter suffer a lot from changes of weather especially during sunny days. Not only do they get scorched by the sun but also their goods get destroyed. When it rains, they have to run for shelter.

**The area lacks proper sanitation:** There are only two public toilets available for the population in Wangige. The market toilets which are managed by the town council and Eka toilet which are located at the bus stop. Both cost ksh10 per visit.

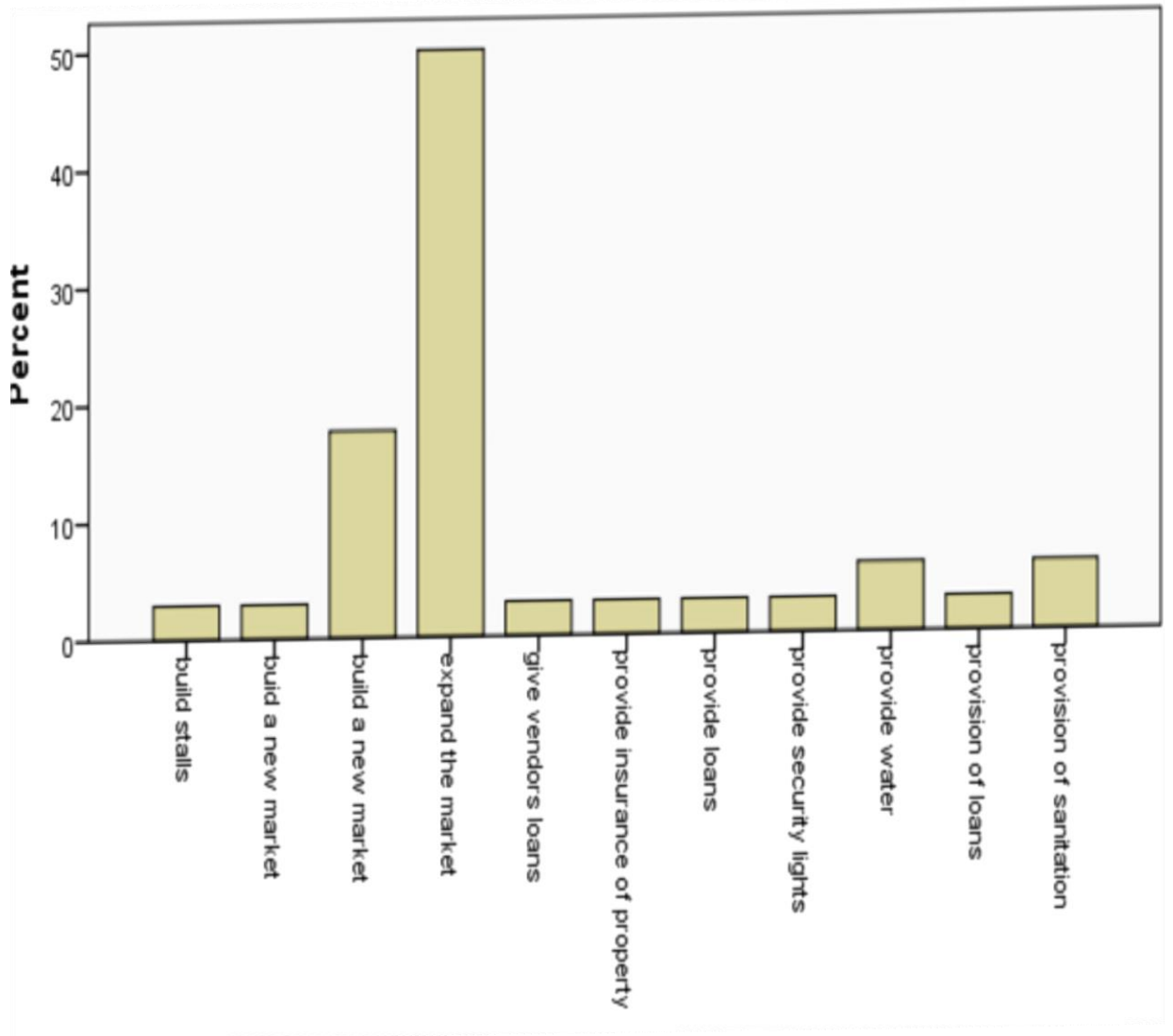
**Water scarcity:** The town council provides borehole water which is quite far from the market and it is ksh 10 per 20 liter container. Vendors selling along road reserves especially those selling fruits need the water to wash their goods. They have to pay up to ksh 40 to water vendors per day and they use almost 4 containers.



**Graph 4: Challenges facing vendors**  
**Source: fieldwork 2018-2019**

### 5.10 Recommendations by vendors

From graph 5, 50% of the vendors want the market to be expanded, 20% want a new market to be built. 2.9% want the county to build stalls, 2.9% want to be given loans, 5.7% of vendors want provision of sanitation and 6.1% want provision of water. There is need to address these requests so that jobs can be created.



**Graph 5: Recommendations by vendors**  
**Sources: Fieldwork 2018-2019**

## **CHAPTER SIX: CONCLUSION AND RECOMMENDATION**

### **Overview**

This chapter seeks to propose recommendations, policy interventions for the identified problems and summary of the research objectives.

### **6.1 Conclusion**

#### **6.1.2 Proportion of traders on road reserve**

The total number of traders in and outside the market is approximately 2000. Vendors outside the market who sell along Gitaru and Mwimuto road are about 400. The percentage of vendors outside the market is 20%.

#### **6.1.3 Reason for use of the road reserves for trade**

Wangige market is over utilized. There is no space to accumulate the growing number of vendors in Wangige. Hence the vendors move to the road reserves.

#### **6.1.4 Impact of traders selling along road reserves**

Vendors have encroached the road reserves and they on the area set aside as parking space to sell they good. Also vendors use the space for parking making it hard for persons with vehicles to access the area.

Some of the vendors use the bus stop to sell goods to people using the matatu mode of transport. The goods they sell include smokies, snacks such as sweets, biscuits and fruits.

The vendors and their customers throw litter on the roads and the road reserves. Despite the efforts of the town council to clean there is still litter in the area. Also the town council has a container where they throw the litter. It's just outside the market entrance and the county council collects twice a week. Most of the days the containers are full. It destroys the beauty of the area, causes pollution and produces bad smell.

The people who have temporary structures have to hire security guards at night to watch over their goods like charcoal from being stolen. Vendors who move from one place to another selling goods and don't pay any fee to the town council for using the space. Therefore, the council loses revenue.

The vendors know that it's not right to sell along the road reserves but because of overutilization of the market space and they have to earn a living to support their families they use the road reserve. This makes it hard for the county Government to implement the policy.

### **6.1.5 Conclusion summary**

The emergence of informal sector businesses in Wangige town, questions the effectiveness of development control policies as well as the institutional and regulatory framework for businesses in the city. Similarly, the plight of the informal business operators in survival and need to sustain livelihood, and the importance of the informal businesses in employment creation creates a necessity for integration of the informal businesses in land use structure of the town, as well as integration of planning policies with other development-oriented policies so as to effectively address externalities that result from the informal sector activities. However, the existing development institutions have failed to effectively integrate the informal sector into the land use structure of urban areas, leaving them on the fringes. The lack of space and allocation guidelines for informal enterprises, ineffective control, management and regularization all point towards weak institutional framework.

The escalating unemployment rates has prompted the youths to seek self-employment by engaging themselves into informal business practices, this has led to the contrition of high encroachment of the roads and hawking activities causing serious conflict zones along the roads. These conflicts push the pedestrians out of the road reserve to the carriage way causing human and vehicular traffic conflicts hence causing a lot of traffic jams and sometimes accidents.

Commercial and transportation system are compatible land-uses but the sense of compatibility will only be realized with an effective and efficient integration approach adopted in the County. Kenyan roads have been encroached by both the informal and formal business developments and transportation land-uses. Weak implementation of controlled developments by the responsible actors have not effectively resisted the pressure of encroachment.

The research findings importance in highlighted the functional and dis-functional structures of urban growth and service delivery. As well, the study forms an important basis for improvement of existing government structures in efficient service delivery and undertaking of development processes. The study will also be of importance in solving the challenges identified in the findings that relate to the informal sector, through participatory and integration approaches.

## **6.2 Recommendations**

### **6.2.1 Construction of a shade and temporary structure**

These structures shall ease relocation and protect traders from theft, damage by weather and also to maintain a high level of cleanliness especially if goods are food stuff and fruits. This will create order and in the future ensure that other developments are not affected by the structure. The structure should be easy to fix and be movable. They will be required to operate at least 5 meters away from the road reserve to ensure that they do not encroach on the roads. This will stop pedestrians from being pushed to the road as is the case now.

## **Rehabilitation of Wangige market**

The county should rehabilitate the market by building stalls for traders to find a place to put their goods when selling. The current situation in the market is that traders are using wheelbarrows, temporary stands and arranging on the ground.

### **Drainage system and sanitation**

Both roads lack drainage systems. During the rainy seasons the area experiences heavy rains this affects access the market. The sub-county authority should build new public toilets for the town. This will help to ease congestion in eka and market toilets.

### **6.2.2 Construction of a new market**

Kabete sub-county authority should buy land and construct a new market which will serve the town. The market should have three times the current capacity of hinterland and the town. Proper drainage should be put in place. Packing space should be provided for the customers using the market. A three level market could also be considered with ground floor having agriculture products, second floor clothing and third floor electronics hardware.

### **Demolition and relocation**

After the construction of the new market vendors should be relocated and the structures along the road reserves demolished.

### **6.2.3 Road reserves**

Before the proposed western by-pass is constructed the county authority should rehabilitate the road reserves. This will reduce congestion on the road and prevent traffic-pedestrian conflict.

### **6.2.4 Policy recommendation**

Encouraging and supporting private sector enterprises and associations to be able to provide data on standards and markets, advice on strategies, and access to technology and innovation together with suitable financing support. Also, there is need to promote tools, such as value chain analysis, which enable entrepreneurs in the informal sector to see what problems and challenges they need to address within and outside their own borders and the nature of partners they need to help them.

The existing policies on informal sector provide fail to recognize the spatiality aspect of the informal businesses, thus there are no specific guidelines that govern the informal sector businesses. Creating effective policies are those that recognize the dynamic nature of the sector, and its spatial manifestations, therefore laying down strategies for the control of the sectors

externalities, spatial guidelines for the informal business activities, and strategies for management of future growth of the sector.

Integration of informal operators in planning by treating them as legitimate and fundamental part of the urban distribution system is very crucial. Such efforts would in turn encourage self-compliance among informal traders and would minimize the instances of nuisance, environmental pollution and obstruction. Mandates need to be sought from various stakeholders in and outside the local government before implementing any regulation. This ensures that all activities targeted at the informal sector are effective and aligned.

Development of land use guidelines and standards for informal businesses, including location, space, tenure systems, amenities and services standards. This will entail revision of the existing plans and standards for the town infrastructure to take into account the existing enterprises and future projections.

### **6.3 Suggestions for future research**

The research project has concentrated on the cause and impacts of informal trade on road reserves in Wangige town, along Gitaru and Mwimuto road. A critical area that this research project would recommend for further research would be organization structure in the management of Wangige market. Another area would be the waste management systems of Wangige town.



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**APPENDIX 1**  
**UNIVERSITY OF NAIROBI**  
**DEPARTMENT OF URBAN AND REGIONAL PLANNING**  
**SCHOOL OF THE BUILT ENVIRONMENT**  
**CAUSES AND EFFECTS OF INFORMAL BUSINESS ON ROAD RESERVES**  
**CASE STUDIES: WANGIGE MARKET**  
**VENDOR QUESTIONNAIRE**

Questionnaire Number

.....

Name of

Interviewer.....

Telephone number of

Interviewer.....

**SECTION 1 – General questions**

1. Name of vendor  
(Optional).....
2. Telephone number of  
vendor.....
3. Gender of  
vendor..... Male..... Female.....
4. Age of vendor  
(Years).....
5. What is the highest level of education attained?
  - a. No education.....
  - b. Primary.....
  - c. Secondary.....

- d. Certificate.....
  - e. Diploma level.....
  - f. University.....
6. What is your marital status?
- a. Married.....
  - b. Single.....
  - c. Widow.....
  - d. Widower.....
  - e. Separated.....
  - f. Divorced.....
7. Where do you live?
- a. In Wangige town .....
  - b. Other areas (Specify).....

**SECTION 2 – TRADE RELATED QUESTIONS**

8. What type of products or services do you offer?
- a.....
  - b.....
  - c.....
  - d.....
9. [Which year and month did you start vending in this particular location?
- .....
10. Which year was this business started?
- .....
11. . What was the source of the initial capital?
- a. Bank loan
  - b. Sacco loans
  - c. Personal savings
  - d. Informal borrowings
  - e. Others (specify)

12. Were you already doing this business before coming to this location?.....

- a. Yes.....
- b. No.....

13. If yes, where were you located before moving to this particular location?.....

.....  
.....

14. If yes, what in particular made you move to this particular location for business?

.....  
.....  
.....

15. If No. to Q12 what was your main occupation?.....

16. . Do you have any employees?

- a. Yes
- b. No

17. How much product do you sell per day?.....

.....

18. Where do you get your supplies from?.....

19. Do you pay any money for using this space?.....

- a. Yes.....
- b. No.....

20. If yes how often and how much (ksh) do you pay?

- a. Daily.....
- b. Weekly.....
- c. Monthly.....

d. Annually.....

21. If yes whom do you pay

to?.....

22. How do you rate the payment? Is it low, moderate or high?

a. Low.....

b. Moderate.....

c. High.....

23. What would be your most comfortable

rate?.....

24. What other payments do you make?

a. ....

b. ....

c. ....

25. What type of waste does your business generate?

a. ....

b. ....

c. ....

26. How do you dispose it off?

a. ....

b. ....

c. ....

27. Do you have access to sanitation facilities?.....

28. Sanitation type availablei

Sanitation type	Sanitation condition (good, fair, bad)
Sewage	
Septic	
Ordinary pit latrine	
Others (specify)	

29. Do you have access to clean water?

(yes).....( No).....

30. Where do you get your water from?

- a. Piped
- b. Vendors
- c. Borehole
- d. Others (specify)

31. Is there parking available for your customers who have vehicles?

32. What are the key challenges that you experience in running your business?

- a. Financial difficulties

.....  
 .....

- b. Accessibility to customers

.....  
 .....

- c. Sanitation problems

.....  
 .....

- d. Others (specify)

.....  
 .....

33. What solutions would you recommend to address the above challenges?

- a. ....  
.....
- b. ....  
.....
- c. ....  
.....
- d. ....  
.....

34. Are you satisfied with this location?

a. Yes.....

b. No.....

(If no)

Explain.....

.....

35. What do you think should be done to improve business for traders in Wangige market?

- a. ....
- b. ....
- c. ....
- d. ....
- e. ....



**DEPARTMENT OF URBAN AND REGIONAL PLANNING**  
**CAUSES AND EFFECTS OF INFORMAL BUSINESS ON ROAD RESERVES**  
**CASE STUDY: WANGIGE TOWN**

*Declaration: this information is confidential and is meant for academic purposes only*

**KEY INFORMANT INTERVIEWS: County Planning Department**

1. What are the requirements of locating an urban market?
  - a) .....
  - b) .....
  - c) .....
  - d) .....
  - e) .....
2. How does the county government carry out development control on market location and operation?
  - a) .....
  - b) .....
  - c) .....
3. Do you have any policy in place currently to promote growth and proper operation of urban markets? .....
4. What are the planning standards for the informal and formal markets in terms of

	Formal	Informal
a) Level of infrastructure services		
b) Catchment population		
c) Who should it serve (i) Neighborhood (ii) Whole town (iii) Others		
d) Market functions		
e) Nature of stalls (i) Permanent (ii) Temporary		

(iii)Open air		
f) Security of goods and users		
g) Compatibility with other users		

5. What are some of the challenges you face in dealing with street vendors?

.....

.....

.....

.....

6. What policy informed the construction of the market at Wangige?

.....

.....

7. Currently, wangige market is not utilized as planned.

a. What explains the situation?

.....

.....

b. What is the County Government planning to do to activate Wangige market or is it irredeemable?

.....

.....

8. What is the county government’s policy on informal trading in urban areas?

.....

.....

9. Does the county have a model market centre layout plans for areas that show possibility of serving into informal market areas?

.....

.....

10. What in your view should be taken into account when planning new market areas?

.....

.....