

# WASTE MANAGEMENT CHALLENGES IN KISERIAN MARKET, KAJIADO-NORTH SUB-COUNTY.

BY:

KELVIN KIPLETING KIRWA

REG. NO: N36S/16456/2015

Submitted in Partial Fulfillment of the Requirements for the Award of the Bachelor of the Environmental Planning & Management Degree, Kenyatta University, School of Environment Studies, Department of Environmental Planning & Management.

DECLARATION
This urban management project is my original work and has not been presented for a degree In any other university
Signed Date
Kelvin Kipleting Kirwa
N36S/16456/2015
This urban management project has been submitted for examination with my approval as the University Supervisor
Signed Date
Ms. Carolyn M. Getao

#### **DEDICATION**

I dedicate this work to my beloved family, my supervisor Ms. Carolyn M. Getao and my fellow course mates. For the support and advice accorded to me during the project writing.

#### Acknowledgments

My first acknowledgment goes to the Almighty God, who constantly showered me with insight, Strength and peace throughout this project, He remained a constant friend. Besides, I would also like to extend my honest gratitude to Ms. Carolyn Getao (my Supervisor) for the guidance she has given me while seeing me through the whole work. God bless her. Nonetheless, my great gratitude also goes to the project coordinator, Mr. Allan Kirui for insightful guidance, he offered.

The whole fraternity of the Department of Environmental Planning & Management and the county government of Kajiado are some of the entities not to forget the continuous support they gave during the project. Lastly, I also thank my family and friends. They were important pillars in various ways and, without them, the project would not be effectively undertaken.

#### **ABSTRACT**

Kiserian is an upcoming town in Kajiado county, Kajiado North constituency, Olkeri ward, along Magadi road, a town Market Center that is rapidly growing urban centers within the County. The town acts as a central connecting joint among; Ngong town, Rongai town and Magadi township, Kiserian is adjacent to the Kiserian dam, the town has been a hub of economic benefit because of the market, and most of the dwellers are pastoral community the Maasai community.

The area has grown beyond the status of a rural market; having surpassed the 2,000-population threshold or an urban center, its management is still under a county council that sits hundreds of kilometers away in Kajiado Town, which paralyses the oversight role of county managing the market, and its operations only left to people to manage. This gets worse by further lack of an institutional, legal and policy framework to support the Kiserian market spatial growth form from rural to an urban growth state.

For effectiveness, they should address the urban management issues in Kiserian Market, this study was designed purposefully to: evaluate the nature and context of the existing legislative and institutional policy process in the study area of its challenges with far-reaching environmental, infrastructural, legislative, governance, economic, social and cultural. Kiserian Market and some of the possible opportunities from the identified urban management. Ultimately, the study proposes research intervention and sustainable measures. This will transform the town into a more viable, functional and sustainable urban area. Sustainable measures implemented in protecting the environment. Not forgetting, the town is an array of several activities that majorly has contributed to more mismanagement. These are poor solid waste management, poor road maintenance, and slaughterhouse waste mismanagement making the town uncomfortable to its standards of living. Some of the methodology used were to critically evaluate the study of the market and bring out the validity and reliability of the research project. These were collection of date using questionnaires, observation and use of photography that shows how the extent of the environmental damage has happened. In this case more of questionnaires was a major methodology used; business and county government of Kajiado.

### **Table of Contents**

CHAPTER 1	11
1.1BACKGROUND	11
1.2 STATEMENT OF THE PROBLEM	12
1.3 OBJECTIVES	13
1.4 RESEARCH QUESTIONS	13
1.5 Research premises	13
1.6 JUSTIFICATION OF THE STUDY.	13
1.7 SIGNIFICANCE OF THE STUDY	14
1.8 SCOPE OF THE STUDY	15
1.9 LIMITATIONS OF THE STUDY	15
Chapter 2 LITERATURE REVIEW	18
2.0 OVERVIEW	18
2.1 INTRODUCTION	18
2.2 GLOBAL VIEW	20
2.2.1 URBANIZATION	20
2.2 TYPES OF MARKETS	21
2. 2.1 MARKETS BASED ON PHYSICAL AND SPATIAL CHARACTERISTICS	21
2.2.2 MARKETS BASED ON TIME ON OPERATION AND SERVICE	22
2.2.3 BENEFITS OF MARKETS	22
2.4 PROBLEMS AND IMPLICATIONS OF URBAN MARKETS	23
2.4.1 Air Pollution	23
2.4.2 ENVIRONMENTAL POLLUTION AND DEGRADATION	24
2.4.3 UNPLANNED and UNREGULATED GROWTH TOWNS	25
2.4.4 RESTRICTIVE PLANNING REGULATIONS	25
2.5 POLICY FRAMEWORK	25
2.5.1 Sustainable Development Goals	25
2.5.2 KENYA VISION 2030	26
2.5.3 KENYA NATIONAL TRADE POLICY.	26
2.6.2 THE COUNTY GOVERNMENT Act 2012	27
2.6.3 THE URBAN AREAS &CITIES Act 2011	28
2.6.4 ENVIRONMENTAL MANAGEMENT & COORDINATION Act (EMCA), 1999	28
2.6.5 THE PUBLIC HEALTH ACT	29
2.7 CONCEPTUAL FRAMEWORK	29
2.7.1 BOTTOM-UP APPROACH	29

2.7.2 Case study Kerk street SOUTH AFRICA:	29
2.7.2 THEORETICAL FRAMEWORK PARTICIPATORY DEVELOPMENT APPROACH	H31
2.7.3 THE CONCEPT OF SUSTAINABLE DEVELOPMENT	21
2.7.4 THE CONCEPT OF GOOD URBAN GOVERNANCE	21
3.1 Location and Size	20
3.2 Physical and Topography	21
3.3 Ecological Conditions	22
3.4 Climatic Conditions	24
3.5 Population size	25
3.6 Urban Population	25
3.7 Socio-economic activities	26
CHAPTER 4 METHODOLOGY	28
4.1 OVERVIEW	28
4.2 DATA SOURCES	28
4.3PRIMARY DATA COLLECTION	28
4.3.1 Nature of Data collection	28
4.3.2 Interviews	29
4.3.3 Photography	29
4.3.4 Observation	29
4.4 SECONDARY DATA COLLECTION	29
4.4.1 Methods of secondary data collection	29
4.5 RESEARCH DESIGN	29
4.6 Simple random sample	30
4.7 Purposive sampling	31
4.7.1 Advantages of Purposive Sampling (Judgment Sampling)	32
4.8 Methods of Data Analysis	32
4.9 Methods of Data Presentation	32
4.10 Methodology Limitations	32
4.11 DATA NEED MATRIX	33
CHAPTER 5 RESEARCH FINDINGS AND DISCUSSION	35
5.0 Introduction	35
5.1 Response rate	35
5.2 Demographic characteristics of the respondents.	35
5.3 Policy Legislative and Institutional Frameworks for Urban Management in Kiserian	36

5.4 Challenges Facing the Urban Management of the Area of Study	37
5.4.1 Solid Waste Management	38
5.4.2 Open-Air Market Space:	38
5.4.3 Poor Urban Governance	39
5.4.4 Spatial Conflict within the Business Operational Area	40
CHAPTER 6 RECOMMENDATIONS	42
Summary of Research Findings	42
6.0 Short Term Recommendations	42
6.1 participatory	42
6.2.1 Urban Sprawl:	44
6.2.2 Waste Management:	45
6.2.3 Urban Management Statutes/Legislations:	45
6.2.4 Urban Development/ Management Policies and Governance:	46
6.2.5 The new constitution	46
6.3 Long term recommendations	47
6.3.1 Relocation of the market	47
6.3.2 Partnerships in Urban Development and Management:	48
6.3.3 Social Inclusion in Urban Development and Management:	48
6.4 Site/ Environmental management plan	49
6.5 Areas of further study	50
6.5.1 Stakeholders and their specific roles in urban management:	50
REFERENCES	52

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#### **CHAPTER 1**

#### 1.1 BACKGROUND

The rapid urbanization in many developing countries, over the past half-century, caused by the concentration of the urban population in most large cities in the world. According to UN 2018 as it stands today 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050 people nowadays live in cities and this proportion will further increase in the years to come.

Some degree of urban concentration may be desirable initially to reduce inter- and intraregional infrastructure expenditures. In a mature system of cities, economic activity is in a wide range. Standardized manufacturing production tends to be de-concentrated into smaller and medium-sized metropolitan areas, whereas production in large metropolitan areas focuses on services, research and development, and non-standardized manufacturing. Urbanization is the most dominant phenomenon in all developing countries. Studies show that urbanization and the economic development status of a country are inextricably linked (S Li, Y Ma, 2014)

However, urbanization tends to result in several challenges, such as poor housing and urban services (water, sanitation, transport, security, and health). Rising land prices and fixed land size, construction costs, the proliferation of slums, pollution and deterioration of the urban environment. Poor urban management of markets is deemed worse. It is important to appreciate that, effective management of market processes needs to differentiate between 'day to day' and 'strategic' goals of an urban form; where day-to-day needs are to do with the cleanliness, accessibility, and facilities within the market. In contrast, 'strategic' activities would promote the long-term success of an urban area. These include attracting the right mix of retailers and discerning the necessary investments for proactive maintenance and a sustainable environment. All this enriches the image of a clean environment. A formally defined and connected management process, which involves all stakeholders, is, therefore, the only satisfactory way to deliver future urban management (Flynn, 2018).

The current official designation by the Local Authorities' standards, Kiserian is a rural market center located at the intersection of three main roads namely: Nairobi-Magadi, Ngong-

Kiserian, and Isinya-Kiserian on the leeward side of Ngong hills. It acts as a dormitory town for the workforce and sometimes for visitors from the capital city. The town is in close proximity to the industrial and commercial Capital-Nairobi has an efficient transport system that links the town to the Nairobi and other satellite towns. Kiserian town is approximately 26 km from Nairobi Central Business District subsequently, a high rate of settlement occurring recently. The presence of affordable land and lack of stringent development control measures. By the standards of the draft Local Government Bill 2009, this population surpasses the 2000 threshold for a market town and even goes beyond the 50000 threshold for an urban Centre (Cap 2., p. 265)the lack of a strategic plan and legal framework to govern the market has significantly evolved as an urban market. To reverse the aforementioned state of degeneration and destruction, the research attempts to explore various remedial strategies for improving the management of the market through a critical situation analysis and appropriate benchmarking.

#### 1.2 STATEMENT OF THE PROBLEM

The bursting rate of urbanization has been one of the major issues. Many national and local government authorities in developing economies have to grapple with it. The main challenges of urbanization in most urban towns are an acute shortage of housing, waste disposal and management, traffic jams and the deplorable state of the roads in some instances, flooding, crime, and other social vices. Kiserian market has grown from a rural market to now an urban market by construction of new modern market stalls. Unfortunately, it has been limited to being effective by its small size due to fixed land size due to the increasing population and a large number of business vendors. Management is an issue left to the county government. This poses the ideal need to manage and properly plan for the Kiserian market. Nevertheless, interventions need to be addressed the issues include; stakeholders' involvement, involve the public at the very local level to offer an opportunity to the citizens.

The urban management where there is development, execution, coordination, and evaluation of integrated strategies. In essence, relevant urban actors, according to the public interest and the goals of the private sector are important but have been left out. The urban mismanagement has adversely affected the people resulting in poor waste management, incomplete market stalls. Finally, the geographic position of the market is situated in the central

business district (CBD). This results in more congestion and human traffic to access the market, this expands the market and managing it becomes a problem

#### 1.3 OBJECTIVES

- 1. To determine the urban management challenges facing Kiserian Market.
- 2. To determine the context of the existing policy framework applicable in the management of Kiserian Market.
- 3. To explore some of the possible solutions in the urban management challenges for the Kiserian market based on the new constitution.

#### 1.4 RESEARCH QUESTIONS

- 1. What are the main urban management challenges facing Kiserian Market?
- 2. What are the existing legal frameworks and policies for the Kiserian market?
- 3. What are some of the urban management possible solutions available for Kiserian Market?

#### 1.5 Research premises

- 1. Collective Involvement in Sustainable Development of the Kiserian market by integrating various approaches in urban planning is necessary.
- 2. It is important to identifying gaps that for a long time have affected the management of the Kiserian market
- 3. The existing policy framework of Kiserian Market is inadequate.

#### 1.6 JUSTIFICATION OF THE STUDY.

The urban challenge facing the Kiserian market is the management of the market to enable it accommodate business startups. Challenges like poor waste management, and

utilization of space are a big factor in determining the cost of operation of various businesses. This brings survival tactics due to inadequate space for the business persons that sometimes causes space use conflicts and congestion. A remedy for this is a proper market management structure that ensures order in the market. A good management structure needs a proper plan (Gimson, 2019). The market experiences weak management and maintenance of the market. In essence, there is no free flow of circulation within the market. The market area being small and the inner stalls are too expensive for most startups. This makes them end up selling along with the walkways space that brings many barriers for people.

The study will also attempts to see through existing laws and policies governing the management and maintenance of the market, under the national and county authorities and labor relations institutions. These challenges are as urgent to be solved since its adverse status thus affects the environment and livelihood systems of the people working there and those residing in the neighborhood, and these challenges need to be turned into opportunities to bring a viable, functional and sustainable living condition of a market.

#### 1.7 SIGNIFICANCE OF THE STUDY

The study is concerned in determining the characteristics of an urban market in the model of the past and the current models of the market structure of other towns and eventually tries in helping the town in its management. The findings would contribute to the development of an management system that could be helpful in the organization of the interface between the provisions of the new and old constitutional on matters of urban management, policies on urban market management and proper market structures provided by, (The Physical planning Act, 1996). In order to improve the business climate for the traders.

The strategic location of the market and its capacity as an urban market needs a wise design with other land use activities. The research will explore ways in which county resources utilization and this will generate more income towards the county collection of revenue. This also has the benefiting factor of creating job opportunities for human resources in specialized disciplines.

#### 1.8 SCOPE OF THE STUDY

The scope of the study has a special interest in understanding space use in the market its location is in the middle of central business district area CBD the Kiserian- Ngong town road where the urban market sits at. It confines within the urban management of any urban market on its effects on the environment. The study will focus on urban challenges in the Kiserian market. In the view of how they have to go in trying to manage the market by the county government of Kajiado. The target groups being the business vendors more specifically in the Kiserian market, the residents who are the users, the county government of Kajiado, and the town itself in its aesthetics betterment.

#### 1.9 LIMITATIONS OF THE STUDY

- The barriers of bureaucracy, furthermore the information given is superficial facts
  concerning the county government management of the Kiserian market since the
  oversight role neglected. The county headquarters are far away from the town.
  Officials from the county barely come for regular checkups to manage the market.
- 2. Every county government faces certain challenges, to face those challenges, meet it in the right way and take regulatory steps; Knowledge of urban management is inevitable.
- 3. There are also challenges of insufficient funds in making leads to fetch data from institutions and various department in collecting data is costly.
- 4. Time-consuming especially public consultations by doing cluster sampling and administering questionnaires, an irrelevant response from the residents is a concern.

#### **OPERATIONAL DEFINITION OF TERMS AND CONCEPTS**

**Urbanization-** refers to the population shift from rural to urban residency, the gradual increase in the proportion of people living in urban areas, and how each society adapts to this change. It is predominantly the process by which towns and cities are formed and become larger as more people begin living and working in central areas. (Christopher G Boone, 2013)

**Urban management**- deals with the development of urban lifestyles. Particularly, urbanization and suburbanization of cities and mega-cities. Urban Management develops, promotes and strengthens innovative practices in urban policy. It is the value-based management of the spatial transformation process, it comprises, every aspect of a city in terms of economic, environmental, social and infrastructure of an urban. (Christopher G Boone, 2013)

**Urban-** Is an area with an increased density of human-created structures in comparison to the areas surrounding it and has a population of 2,000 and above. In this definition, urban areas include cities, municipalities, town, councils and urban councils (GoK,2009)

**Anglophone**- a person who speaks English, especially in countries where other languages are also spoken, -e.g. Kenya and Zimbabwe, consisting of or belonging to an English-speaking population especially in a country where two or more languages are spoken (College of Environmental Design CED)

**A pedestrianized** area made into an area specifically for pedestrians, not vehicles. (COBUILD Advanced English Dictionary)

#### **ACRONYMS AND ABBREVIATIONS**

GoK -Government of Kenya

EMCA - Environmental Management Authority

NEMA -National Environmental Management Authority

UNPF- United Nations Population Fund

CBD - Central Business District

FAO - Food Agriculture Organization

UNCED - United Nations Conference on Environment and Development.

BOO - Built Operate Own

**BOT** -Built Operate Transfer

NUDA- National Urban Development Policy

WCED- World Commission on Environment and Development

#### **Chapter 2 LITERATURE REVIEW**

#### 2.0 OVERVIEW

This chapter reviews the subject of urban management. A broad and diverse way of how people do their business activities. Therefore, issues to discuss include:

- 1. Analysis of the concept of urban management.
- 2. Functions of markets
- 3. Classification of markets.
- 4. Types of markets, the benefits of market management.
- 5. The planning context of markets, the problems, and implications of urban market mismanagement.
- 6. Policy and legal framework towards the management of urban markets in Kenya.

#### 2.1 INTRODUCTION

Kiserian is an upcoming town in Kajiado county, Kajiado North constituency, Olkeri ward, along Magadi road, with it is Kiserian Market Center that is one of the rapidly growing urban centers within the County. The town acts as a central connecting joint among; Ngong town, Rongai town, and Magadi township. Kiserian is adjacent to the Kiserian dam. The town has been a hub of economic benefit because of the market; most of the dwellers are the pastoral community in the Maasai community. Presence of a slaughterhouse as this a revenue basket to the county's economy.

The big pieces of land occasionally sold as real estate is a lucrative business hub. Although the area has grown beyond the status of a rural market; having surpassed the 2,000-population threshold of an urban center, its management is still under a county council. The county government sits hundreds of kilometers away and back in Kajiado Town. The oversight role of the county managing the market paralyzes and its operations only left to people to mismanage. The worse furthers by lack of an institutional and policy framework to support the Kiserian market spatial growth. The rural to an urban growth state by the spatial planning team from the county has been on a go-slow for long in its implementation.

To address the urban management issues in Kiserian Market effectively. The study designs purposefully to; evaluate the nature and context of existing legislative and institutional policy. The process in the study area faces several challenges with far-reaching environmental, infrastructural, governance, economic, social and cultural implications. Frameworks like the EMCA and NEMA regulations are applicable in the urban management of the Kiserian market. Exploring the urban management challenges facing Kiserian Market and some of the possible solutions from the identified urban management challenges. The new constitutional dispensation in Kenya on environment conservation being a benchmark.

Ultimately, the study will propose research intervention and sustainable measures. This will transform the town into a more viable, livable town. A functional and sustainable urban area in the region is desirable (Simon, et, al, 2016). The restoration and efforts of sustainable measures in protecting the environment since the town is an array of several activities. The main contributors being, mismanagement solid waste, poor road maintenance, slaughterhouse waste mismanagement making the town uncomfortable to its standards of living.

The urban setup undergoing pressure by the looming increase of population in the urban market, where people are migrating to major cities while others change their status so fast to being modern cities and towns all over the globe. a worrying trend being the accommodation of all these people on a fixed land which does not expand since it's a fixed resource, this begs the question on how there is so much exploitation of natural resources, manmade resources, which puts them into depletion that brings challenges i.e. Rapid urban population growth. Rise of megacities, High urban poverty level, Inadequate basic services, Environmental degradation, sustaining urban areas as engines of growth, Managing urban growth, Bridging, supply and demand gap on infrastructure services.

Kenya, like many other developing countries in Africa, is experiencing rapid urbanization growth. Many cities and towns have grown in population size and expanded to form huge metropolitan regions through the effects of the urban sprawl phenomenon. Metropolitan regions do present huge development and management challenges as well as opportunities. The rapid urbanization also generates a lot of urban management problems and challenges in the context of economic, social and environmental facets. (UN-Habitat 2008).

Urban management is concerned with policies, plans, programs, and practices. These seek to ensure that population growth is matched by access to basic infrastructure, shelter, and employment. Moreover, such access will depend more, on private initiatives and enterprise, these affect the public sector policies and functions that only the government can perform. This section attempts to review literature related to urban management and attempts to project the voids the study aims at filling. It focuses on major themes such as the classification of urban areas, available urban management theories.

#### 2.2 GLOBAL VIEW

#### 2.2.1 URBANIZATION

Globally, more people live in urban areas than in rural areas, with 54% of the world's population residing in urban areas in 2014. In 1950, 30% of the world's population was urban, and by 2050, 66% of the world's population is projecting to be urban. (UN, 2013)

Today, the most urbanized regions include Northern America (82% living in urban areas in 2014), Latin America and the Caribbean (80%), and Europe (73%). In contrast, Africa and Asia remain mostly rural, with 40 and 48 percent of their respective populations living in urban areas. All regions expected to urbanize further over the coming decades. Africa and Asia are urbanizing faster than the other regions and are projected to become 56 and 64 % urban, respectively, by 2050 (World Urbanization Prospects: 2014). Close to half of the world's urban dwellers reside in relatively small settlements of less than 500,000 inhabitants, while only around one in eight live in the 28 megacities with more than 10 million inhabitants.

A salient feature that is gaining growing recognition in human settlements transformation is urbanization. This growth impacts on the provision of social services and spatial organization, hence its management is crucial. This growth requires adequate planning and control to ensure harmonious developments and functional efficiency (Aribigbola, 2012). Urbanization in most developing nations is a consequence of the "push" of the rural areas and the "pull" of the urban centers (Gindelsky, M. 2017). The push and pull in this regard are concerning the population. This traced to the effects of regional imbalances. Urban growth refers to growth

that makes intensive use of land for the location of buildings and impermeable surfaces to a high degree. Urbanization is mainly resulting from urban growth, which could be due to natural population growth, reclassification of the urban and rural system and rural-urban migration.

According to (McGregor, 2014) Growth and management of the physical environment following a predestined guide and policies. Its goal is to make provision for the coordination of all forms of development activities at the national, regional and local levels. (Michael 2010) observes that even though towns are considered to be the 'engines' of economic development, failure to manage the impacts of rapid urbanization provides a threat to the health of human beings, as well as environmental quality and urban productivity. This has resulted in the degradation of many sensitive resources; occupation of hazard-prone areas; loss of open space and prime agricultural land; and excessive urban sprawl. In most cases, the causes of these problems emerge from inappropriate regulation, lack of secure tenure, inadequate infrastructure, and weak and poorly coordinated actors in the land market In (National Urban Development Policy (NUDA 2008) In most cases land use development in urban areas often cause stress on the environment, leading to degradation of vital natural resources. Urban air pollution is a major environmental issue threatening the health of city inhabitants and beyond.

Okpala, 2013 argues that the fundamental challenges faced by urban areas in Anglophone African countries include high urban population growth, unregulated physical growth, and expansion of cities. The challenge of mass poverty, particularly urban poor and weakness of the urban management institutions reflected in their inability to provide basic urban services. The prevalence of low levels of proper oversight by local authorities and the responsible authorities is a challenge to town planners and administrators in many African countries.

#### 2.2 TYPES OF MARKETS

#### 2. 2.1 MARKETS BASED ON PHYSICAL AND SPATIAL CHARACTERISTICS.

There are markets based on the physical area available for any operations to take place and all depends on the county allocation space for the market normally positioned where people have

access to and proper circulation to ease user-friendly services with a guiding principle of sustainable development (sluch 2018)

- 1. Similar open sales space areas for business persons and users, operated by an individual hawker or peddler street or roadside markets (common in both rural or urban areas)
- 2. The open-air markets (typically in a paved urban square) that allow people to do their selection openly without any covering by the seller (common in urban areas)
- Small-scale retail shops associated with urban market areas; and Markets sharing a number of the above characteristics, most commonly found in the center of small rural towns.

#### 2.2.2 MARKETS BASED ON TIME ON OPERATION AND SERVICE.

- 1. Markets offering a wider range of trading functions than retailing, combining retail and wholesale markets. Usually found in small towns and cities.
- 2. Buildings specializing as markets on one day in the week or at a specific time of the day. The whole or part of the site used for a different purpose at other times such as a car park, e.g. the weekend Maasai market near the judiciary that used as a car park on weekdays.
- 3. Weekly or seasonal markets, generally termed "periodic markets"
- 4. Markets operating every day on a permanent site, whether from a fixed building or a mobile stall (possibly with expanded activities at weekends or on specific days)

#### 2.2.3 BENEFITS OF MARKETS

Markets provide low-cost retailing facilities based on small-scale operations and are typically found in the low and middle-income, higher density areas of cities and small towns and the centers of villages in rural areas. (Georgia, 2013)

#### Markets provide:

1. To provide, at assembly markets, opportunities for the bulking-up and export of goods and produce to outside areas;

- 2. To provide an important means of generating a diversity of retail outlets in towns and cities by supplying low-cost space for
- 3. To provide an opportunity to achieve improvements in food hygiene standards and reductions in post-harvest food losses.
- 4. Providing opportunities for the exchange of goods and services by producers and consumers.

#### 2.4 PROBLEMS AND IMPLICATIONS OF URBAN MARKETS.

Many cities in the world just grew organically and did not plan for the number of citizens who would depend on the city as a place for trade, jobs, education, transport, healthcare, residence and specialized services (United Cities and Local Governments; 2010)

. Some of the main problems include

- 1. noise and air pollution
- 2. water pollution,
- 3. inadequate sanitation facilities
- 4. Poor liquid and solid waste.
- 5. The growth of slums and uncontrolled developments
- 6. environmental degradation
- 7. unemployment
- 8. drastic land-use changes, inadequate shelter, infrastructure, social facilities,
- 9. pressure on the existing infrastructure, housing and social amenities (46th ISOCARP Congress 2010)

#### 2.4.1 Air Pollution.

Motor vehicle traffic is an important source of harmful emissions of particulate pollution in cities of the developing world, where economic growth, coupled with a lack of effective transport and land use planning is resulting in increasing vehicle ownership and traffic congestion. These factors combine to create air pollution hotspots in urban areas (The 2009 Revision. New York: United Nations; 2010). Urban growth expected to continue at a rapid pace

in the developing world, particularly in sub-Saharan Africa as rural populations continue to migrate to cities in search of employment and expectations of better living conditions. The strategy to reduce emissions and better plan for urbanization. The trend expected to exacerbate already serious air quality problems in sub-Saharan African cities. In Kenya, most of the urban markets are within the towns and transportation takes. The study shows the contamination scale of air inhaled by city residents is five times higher than the recommended international levels. Experts attribute the dangerously high toxic levels to the extreme concentration of diesel-consuming vehicles and high-rise buildings that hold the polluted air while blocking out cleaner air (The Standard, 20th March 2012) but with excessive air pollution usually associated with myriad health conditions, this is an environmental hazard we cannot afford to harbor anymore.

#### 2.4.2 ENVIRONMENTAL POLLUTION AND DEGRADATION.

Pollution and degradation of the environment are some of the most prominent challenges of urbanization. Urbanization leads to a rise in pollution levels. The increased number of vehicles on roads and industrial waste are the main source of air and water pollution (Agyei-Mensah, 2017). Pollution problems in urban areas are due to lack of appropriate planning, inadequate political will, and poor urban management. Weak enforcement of existing legislation as well as an absence of economic and fiscal incentives to promote good practices. Lack of adequate sanitation facilities in many urban market areas in Kenya and poor sewage disposal and refuse collection have contributed to water pollution and environmental degradation. In many urban areas in Kenya, sanitation has not received the priority it deserves.

Before the promulgation of the Constitution of Kenya 2010, which established 47 counties, Kenya had 172 local authorities out of which only 32 had sewerage systems weak enforcement of existing legislation, public ignorance on the importance of safeguarding the environment. Illegal disposal of waste, failure by traders and users to adhere to the polluter pay principle and lack of adequate county government support to conserve the environment. The use of open dumpsites for solid waste disposal makes environmental pollution highly probable. There is an urgent need to seek workable solutions by the application of planning, economic, legal, institutional and educational tools that will be available in the final chapter of this work.

Hoping these tools when properly adopted it will result in the proper environmental management practices. This would prevent the further deterioration of our physical urban environment; hence the possibility of achieving sustainable development in urban markets in Kenya.

#### 2.4.3 UNPLANNED and UNREGULATED GROWTH TOWNS.

In many developing countries, effective and efficient land use planning and management are not well established. The most potent manifestation of this is the chaotic state of land use activities in the cities (Romanus,2011) the physical, economic and social conditions of many African cities have been well documented. Rapid rates of urbanization have resulted in unplanned and unregulated growth on land. Significantly, the acquisition and development of land are associated with economic growth. The development control process is subject to plans, regulations, and laws (UN-HABITAT (2008), "The State of African Cities, 2008) The manifestation of ineffectiveness of the control process in cities derives to a large extent from the planning, the regulatory and administrative frameworks within which physical development and environmental sanity takes place. This has not been seen in some of the urban markets as they popup their management if poorly done which leaves the markets being in a deplorable state to reclaim it again, the management begins at its initial stage to control growth.

#### 2.4.4 RESTRICTIVE PLANNING REGULATIONS.

The various Acts regulating urban management seem to be outdated and not conforming to the country's current social, economic and political circumstances. Planning regulations and standards considered too static and inflexible, e.g. the development control code and the building and zoning regulations. (Seydiogulları, 2016).

#### 2.5 POLICY FRAMEWORK

#### 2.5.1 Sustainable Development Goals

Cities and human settlements will be key to achieving the global SDGs. The SDGs come into effect in a world that is increasingly urban, with a little over half the global population now living in cities. Urbanization has thrown up some of the world's greatest development challenges, but it also has tremendous opportunities for advancing sustainable development. SDG 11 recognizes the central role of urbanization in sustainable development, and calls

for making cities and human settlements inclusive, safe, resilient and sustainable (Andersson, et, at,2019). As one of the 17 SDGs that will shape public policy priorities and guide development finance flows for the next fifteen years, the 'urban SDG' provides a tremendous opportunity for cities to build robust partnerships and gain additional resources for advancing sustainable urban development. This is achieved through adapting, implementing and monitoring urban town by use of participatory process.

#### 2.5.2 KENYA VISION 2030

The vision aims at transforming Kenya into a middle-income economy through the provision of high-quality life to all its citizens by the year 2030 based on three pillars: economic, social and political pillars. Social activities, one of the three pillars of the vision, are anchored environmental stability; this was after considering its contribution to the country's sustainability in the year 2030. The vision, therefore, places a high premium on the stable macroeconomic environment the country enjoys: expected to continue. The simplification of business registration and trade licensing will continue to create a more enabling business environment for all trading activities. Provision of an enabling environment for micro-enterprises growth translating to the physical attribute of markets will involve ensuring markets are located in the right places, have adequate spaces and are appropriately monitored and managed to control and manage the environment.

#### 2.5.3 KENYA NATIONAL TRADE POLICY.

Kenya's national trade policy indicates that retail trade in Kenya is run by inadequate and poorly serviced business premises. The trade policy is of the view that the policy direction of retail trade is to facilitate the growth of a vibrant retail sub-sector supported by a well-established and functional infrastructure and social amenities including adequate space provisions, Proper circulation within the market. The informal sector is faced by similar challenges where infrastructural development is not only proposed using public-private partnerships programs through the Build operate Own (BOO) and Built operate Transfer (BOT) but also encourages market development (Ministry of Trade 2010).

The national trade policy also acknowledges that the key pillar of trade and investment promotion. These include continual progress towards the establishment of a market-based economy and the rule of law. The elimination of barriers to trade and investment and implementation of economic policies to reduce poverty (Ministry of trade 2010). Elimination of trade barriers includes the provision of a facilitative good physical environment for the conduct of trade. Space provision is key to effective physical functionality, and in this case, focuses in Kiserian market management.

Cap four of the Constitution (Bill of Rights) in article 42). States that every person has the right to a clean and healthy environment. Protection of the environment for sustainability, through legislative and other measures. Nevertheless, those contemplated to have obligations relating to the environment. Chapter Five of the Constitution (land and environment). states that land should be used in a manner that is equitable, efficient, productive and sustainable (article 60, 1). In addition, (article 62 (1),(h). States that Public land shall include all roads and thoroughfares provided for by an Act of Parliament. The County government shall hold the land. Administered by the National Land Commission on behalf of the county. In the same effort, the Kiserian market needs to have proper management of its growth. This achieved by good infrastructure, spacing, clean, and healthy conditions suitable for the users.

#### 2.6.2 THE COUNTY GOVERNMENT Act 2012

This is an act of parliament enacted in 2012. Primarily to give effect to chapter 11 of the constitution that provides for county planning. This includes all matters relating to planning and facility provision such as functional markets. The Act authorizes county governments to guide, harmonize and facilitate development within each county, the county governments should prepare; county integrated development plans, county sectoral plans, county spatial plans and cities, and Urban areas plans. These plans form the basis of all budgeting and spending in a county. The county planning framework integrates economic, physical, social, environmental and spatial planning. The functions of the county government concerning facility provision and management stipulated in the above planning provisions. Market planning and management is

the role of the county government. Kiserian market is in the mandate of the Kajiado county government.

#### 2.6.3 The Urban Areas & Cities Act 2011

This is an Act of parliament formulated to provide for the classification, governance, and management of urban areas and cities; to provide for the criteria of establishing urban areas, to provide for the principle of governance and participation of residents and connected purposes. All cities and municipalities should operate within the framework of integrated development planning which shall give effect to the development of urban areas and cities as required by the law. Markets are located in towns, their control and management must be guided by provisions of this act; i.e., done by the respective county government. The act provides that the residents of a city, municipality or town have given powers to deliberate and make proposals to the relevant bodies or institutions on the proposed issues for inclusion in county policies, county legislation, and the proposed development plans of the county and the national government. This is an important avenue in stakeholder participation in any development undertaken in the town in this case Kiserian town.

#### 2.6.4 ENVIRONMENTAL MANAGEMENT & COORDINATION Act (EMCA), 1999

This Act promotes environmental sustainability as one of its principles. The general principle is that every person in Kenya is entitled to a clean and healthy environment. Every Kenyan also has a duty to a safe, clean and guarded environment, the Act gives effect to the constitution of Kenya 2010. For instance, in the bill of rights, (article 42) states that every person has the right to a clean and healthy environment, which includes the right to have the environment protected for Sustainability through legislative and other measures. The Act states that NEMA will be the sole controller of the environment and that for any development likely to have adverse effects on the environment, an Environmental Impact Assessment carried out before its initial start. These, in particular, include activities out of character with its surroundings, any structure of a scale not keeping with its surroundings and major changes in land use. Development approval for the alteration in the market sought from NEMA after an environmental impact assessment.

#### 2.6.5 THE PUBLIC HEALTH ACT

This act is concerned with the health of the public. Its objective is to ensure that members of the public live in a clean and healthy environment. It mainly addresses matters of sanitation, hygiene, and general environmental health and safety. Section 116 requires the local authorities to take all lawful, necessary and reasonable measures to maintain their mandate clean to prevent the occurrence of a nuisance, condition liable to injuries or dangerous to human health. Inappropriate use of space in the market results in congestion that causes an unhealthy operating environment. In the case of food joints in the market, inappropriate use of space and hygiene standards is a likely cause of disease spread.

#### 2.7 CONCEPTUAL FRAMEWORK

#### 2.7.1 BOTTOM-UP APPROACH

'Bottom-up approach of urban management' generally means that local governments or committees formed by local citizens are responsible for urban planning of their districts. The solution to urban problems and planning future development, and thus the town link together to make the whole region more developed. The voices of the citizens can listen during the policy-making and planning of the future development of the districts (Pissourios, 2014). Decision-making is faster and desperate and serious problems of town could be alleviated or solved in a shorter time.

#### 2.7.2 Case study Kerk street SOUTH AFRICA:

Kerk street market situated in the inner city of Johannesburg. Initially, traders were trading around this area to capture the working-class pedestrian traffic that was moving between Park Station and Gandhi Square and the various offices in Marshalltown and Carlton Centre. The concept of this street market was finding a way of dealing with informal street trading to ensure the environment of the city improvement district (CID) kept clean and well managed. The decision being to pedestrianize five blocks of Kerk Street and accommodates informal street traders in this space as a way of organizing the traders and contributing to the aesthetic image and vitality of the town.

The management under the local government encouraged a participatory approach in handling and running of the market. This came from grassroots rather than a top-down approach where forced regulations to the traders. Therefore, each block has a block leader that represented the traders in their block and assists in dealing with the day-to-day conflict resolution between traders and local government.

The main subject learned from the case of Kerk Street is pedestrianization, market management, and design needs. The concept of pedestrianization found in the planning of the market (N Hussein, 2017). This would not have been possible in such an area without converting the street into a street market. Therefore, to do it there was a need to pedestrianize the street to reduce the amount of traffic especially the vehicle traffic. The only traffic going to the site was that going specifically to the market or adjacent buildings. It is however very minimal through traffic which happens to be only human traffic. Design needs was a concept well seen in the area not by its existence but rather by its deficit, the lack of proper design of the market results in it being of very low capacity resulting in spillovers to adjacent streets. As such, it emphasizes that the allocation of space itself is not adequate for the provision of markets without proper design interventions.

### 2.7.2 THEORETICAL FRAMEWORK PARTICIPATORY DEVELOPMENT APPROACH

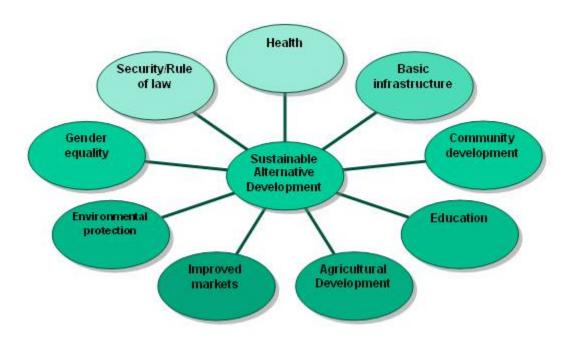


Figure 1.0 Participatory Approach; source (W Peerapun, 2018)

A participatory approach is an approach for learning about and engaging with communities. It combines an ever-growing toolkit of participatory and visual methods with natural interviewing techniques. Intending to facilitate a process of collective analysis and learning. The approach used in identifying needs, planning, monitoring or evaluating projects and programs. Whilst a powerful consultation tool. It offers the opportunity to go beyond mere consultation. Promoting the active participation of communities in the issues and interventions that shape their lives. More traditional, extractive research tends to 'consult' communities and then take away the findings for analysis, with no assurance to do. In contrast, the Participatory approach combines the sharing of insights with analysis and, as such, provides a catalyst for the community themselves to act on what is uncovered (Windsor, 2013). The approach has been used, traditionally, with rural communities in the developing world. This found extremely effective in tapping into the unique perspectives of the urban poor, helping to unlock their ideas not only on the nature and causes of the issues that affect them but also on realistic solutions. It enables local people to share their perceptions and identify, prioritize and appraise issues from their knowledge of local conditions, by utilizing visual methods.

#### 2.7.3 THE CONCEPT OF SUSTAINABLE DEVELOPMENT.

Sustainable development as one that meets the need of the present without compromising the ability of future generations to meet their own needs (J Havukainen, 2018). Nevertheless, prominence is given to the concept of sustainable development. Simply to its emergence as one of the key resolutions of the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. This seconded by the Habitat Conference at Istanbul, 1996. The emphasis is on the need for sound environmental management to achieve the objectives of sustainable development. In line with the concept, there needs to be a clear cut on how urban towns manage. In essence, as development goes on, we industrialize before we urbanize to avoid so much environmental degradation as this concept helps us in making our towns better. (Bilan, 2013).

The basic challenges of how to strike a balance between various urban needs. How to sustain a modern town and make it environmentally friendly. Technologically advancement with current innovations, luck of technology constitutes a nuisance to the environment (N Arora, 2018). This is necessary because towns are nerve centers of economic growth, political hotbed, and a place where technological innovations and human achievements displayed.

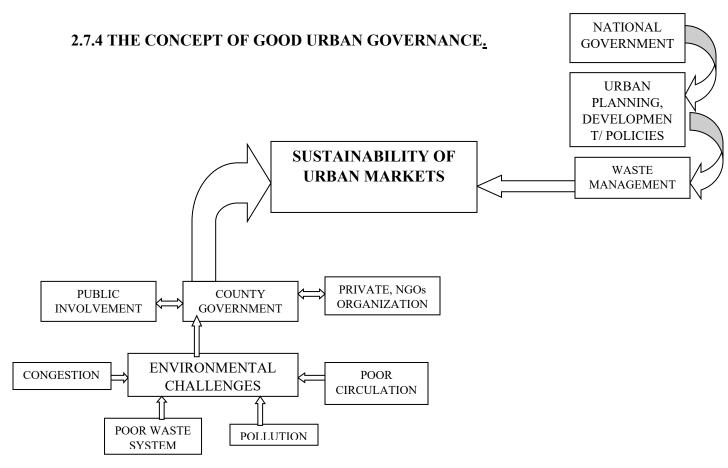
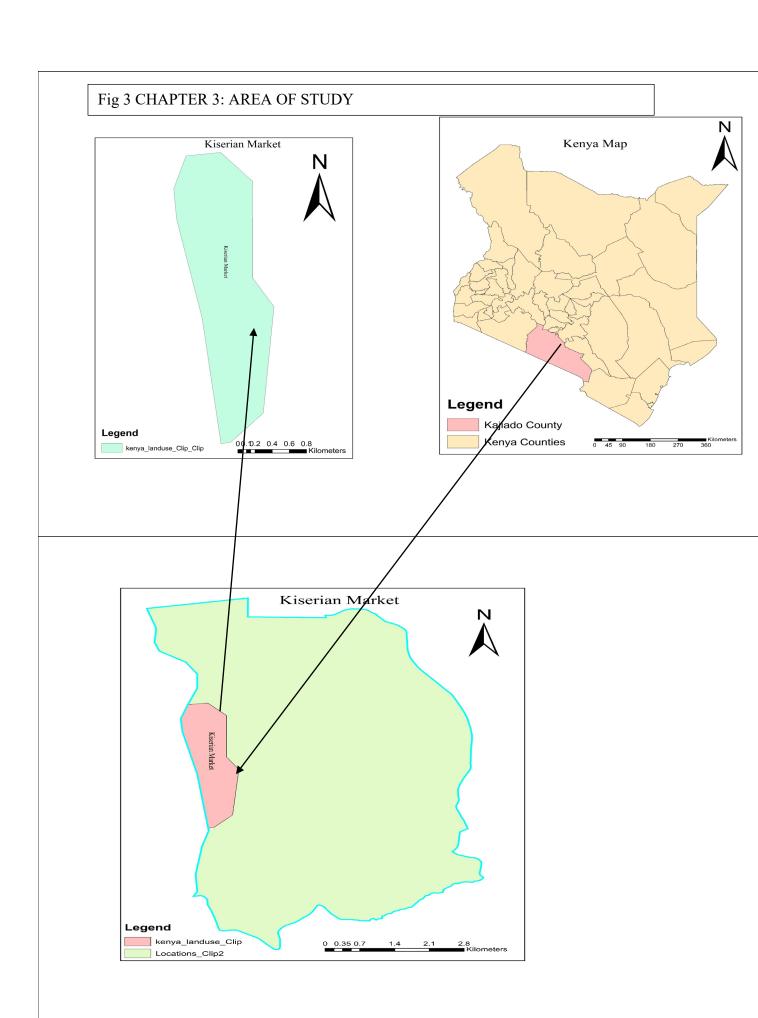


Figure 2.0 Concept of Good Governance for management of markets (Source researcher 2019)

An urban town has a working structure of governance where there are different professionals. The human resource and personnel deal with different issues. Good governance tries to link the citizens to the services it delivers. Nevertheless, developing a town with a guiding principle of sustainability, where there must be collective participation by the public and relevant stakeholders (Rotberg, 2014). Kiserian market needs proper governance and management since laws and policies weakly implemented. There is a need to have a working structure of governance that helps in managing market maintenance, sewer systems, strict adherence to conserving the environment. Analytical tools, Participatory enables all community members to participate, regardless of their age, ethnicity or literacy capabilities.



#### 3.1 Location and Size

Kajiado County is located in the southern part of Kenya. It borders Nairobi County to the North East, Narok County to the West, Nakuru and Kiambu Counties to the North, Taita Taveta County to the South East, Machakos and Makueni Counties to the North East and east respectively, and the Republic of Tanzania to the South. It is situated between Longitudes 360 5' and 370 5' East and between Latitudes 10 0' and 30 0' South. The county covers an area of 21,900.9 square kilometers (km²)



Plate 1
A photo showing the town and the market.

#### 3.2 Physical and Topography

The main physical features of Kajiado County are plains, valleys and occasional volcanic hills ranging from an altitude of 500 meters above sea level at Lake Magadi to 2500 meters above sea level in Ngong Hills in regards to Kiserian market, it is relatively on a flat surface within the town. Topographically, the market is on a table surface land, east of Ngong hills on the leeward side. It is surrounded by River Kiserian that drains its water to Kiserian Dam on the southern side of the Market. The altitude ranges between 600 and 1740 metres above sea level. The surrounding Ngong hills are the catchment areas for Athi River, fed by Mbagathi and Kiserian tributaries. The Central Broken Ground is an area stretching 20-70 kilometers wide from the northeastern border across the county to the southwest where the altitude ranges from 1220 to 2073 meters above sea level.





Plate 2
A photo showing the open drainage to the market.

Plate 3

A photo showing Kiserian market.

#### 3.3 Ecological Conditions

Kiserian market ecology factors have over years involve interaction of both the biotic and abiotic factors. Nonetheless Kiserian market is a hub for most raw materials used within the county. To begin with, is the natural environment and several water catchment areas with a close proximity to Kiserian market, from Kiserian dam, Kiserian tributaries, the natural nutrient rich soils, average vegetation cover that support pastoralism and livestock rearing. The occurrence of groundwater depends on the climate, topography as well as the origin of the underlying rocks. Groundwater yields vary throughout the county from 0.01 to 35.77 cubic meters per hour (Kajiado CIDP). Average groundwater reported as good quality and used for domestic, livestock and irrigation purposes. Other sources of water for the Kajiado County Integrated Development Plan, 2013-2017 are 5 domestic and livestock use sub-surface use subsurface sources such as water pans, dams, and shallow wells. The amount of surface water varies from area to area in this case Kiserian is on a receiving end to annually stabilize underground water sources in their usage. On vegetation cover, grazing, browsing, charcoal burning, extraction of fuelwood and cultivation is the major causes of vegetation reduction. Canopy cover ranges from less than 1% on heavily settled areas to about 30% on steep hills. All this has helped in moderation the ecological conditions of the area and the market; however, continual destruction of the environment limits their survival. The vegetation cover continually depletes due to several human activities. The ecological condition of a place truly shapes how the environment will have any sustainability in the near future. Having a proper plan that regularly cross check on these

conditions is the way to go, only through interventions of various stakeholders in having round table and discuss for the better of the area.



Plate 4
Water sources used by business people in the market

#### 3.4 Climatic Conditions

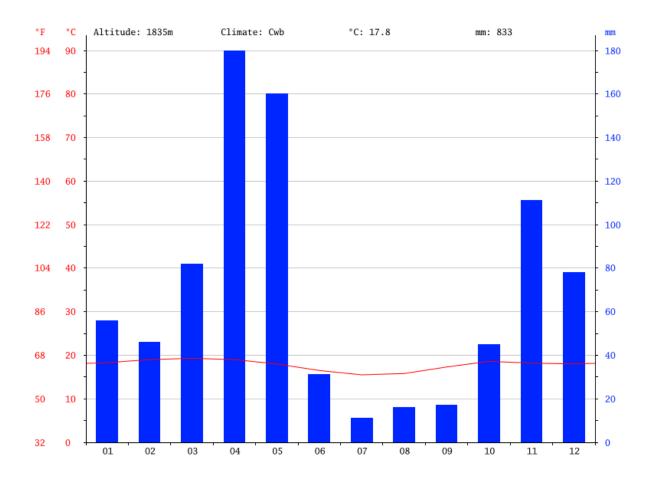


Figure 4-climate graph of Kiserian by month source climate-data.org 2014

The Kajiado county has different micro-climate variations pattern according to various parts of the county nonetheless has a bi-modal rainfall pattern. The short rains fall between October and December while the long rains fall between March and May. General rainfall gradient that increases with altitude. The bimodal rainfall pattern is not uniform across the County. The long (March to May) rains more pronounced in the western part of the County while the short (October to December) rains heavier in the eastern part in this case the Kiserian market. The rainfall amount ranges from as low as 300mm to as high as 1250mm in the Ngong hills and this generally affects Kiserian market on the leeward side. Temperatures vary both with altitude and season. The highest temperatures of about 27 ° C recorded while the lowest of 14°C experienced. The coolest period is between July and August, while the hottest months are from November to April

#### 3.5 Population size

Table 2.6: Distribution of Population, Number of Households and Average Household Size by Sub-County, Cont'd

National/ County	Population+	Number of Households	Average Household size
Kajiado	1,107,296	316,179	3.5
lsinya	207,715	71,579	2.9
Kajiado Central	159,520	37,238	4.3
Kajiado North	304,404	101,378	3.0
Kajiado West	181,622	42,774	4.2
Loitokitok	190,174	47,058	4.0
Mashuuru	63,861	16,152	4.0

Table 1 KNBS 2019 population and housing census

The county has an annual population growth rate of 5.5 percent with the population in 2012 estimated at 807,069 of which 401,784 were females and 405,285 males. The population projections for 2009, 2012, 2015 and 2017 for the different age cohorts. The latest population census for Kajiado county has risen up, standing at 1.1 million people.

#### 3.6 Urban Population

Kiserian town is an urban town located Kajiado county, according to the 2012 projected urban population in the county stands of approximately 20,780, which is 23.8 percent of the total population. According to the Cities and Urban Areas Act, 2011, an urban area qualifies to be a town if it has a population of at least 10,000 people. According to these criteria Kiserian, qualifies to be a town with a market within Kajiado county based on the 2009 Kenya Population and Housing Census. Over years there has been population increase on the fixed land thus increasing the pressure on the available resources. By 2017, projections that the population on the urban areas will increase but would still be less than the required number to qualify as a municipality that requires a minimum population of 250,000 (Source: Cities and Urban Areas Act, 2011).

#### 3.7 Socio-economic activities

The average number of children per woman in Kajiado County is 4.5 that is slightly higher than the national average of 3.9 children per woman. In regards to Kiserian scope most women are rated 4.3 this has seen the rising effect of childbearing and population increase. More than half of the currently married women in Kajiado County are using contraception (55%) which is slightly lower than the national average of 58 percent. Unskilled delivery is one of the contributing factors to infant and maternal mortality evidenced by the presence of few health facilities in Kiserian town, this has an effect of the end quality service to most residents in Kiserian town. Kiserian town through a representation close to two thirds (63 percent) of births are attended by a skilled health provider. This is slightly higher than the national average of 62 percent. The proportion of children 12-23 months who have received all basic vaccines (56 percent) is lower than the national target of 80 percent. The county HIV prevalence at 4 percent is lower than the national HIV prevalence of 6.4 percent. Nonetheless, level of education Kiserian town has several primary schools and the education is relatively average primary school net enrolment rate of 75%.

However, the secondary school net enrollment rate for the region is very low at only 26 percent and on the other end large number are out of school. However, the primary school pupil-teacher ratio (2.7) and secondary school pupil-teacher ratio (1.6) favorable compared to the national ratio of 40. (Kajiado county, CIDP, 2017). In relation to the management of markets, the rising population has far much affected the pressure of the available resources which are fixed. Having a controlled birth rate will stabilize the pressure of the available resources. Going by the above statistics, most of the population are the youth and they are a big chunk in labor supply in the market. Nonetheless, having a proper awareness on the essence of keeping the environment clean by dispensing public awareness to most youth on the importance on the environment. The county government through their policy concerning the socio-economic activities, has considered having an upper hand in supporting women, people with disabilities and the youth with financial aids through loans. This initiative has rose to more business startups in Kiserian and the entire county. The unforeseen thing being the market hasn't been expanded which continue to cause more problems than solutions.

# Socio-economic profile of Kajiado County

Socio-economic Characteristics	Indicators	
Health	Average Number of Children	4.5
	Per Woman	
	The proportion of Married	54.5%
	Women Using Contraception	
	The proportion of Births	63.2%
	Attended by A Skilled Health	
	Worker.	
	HIV Prevalence	4.4%
	Children 12 - 23 months fully	56.4%
	vaccinated.	
Education	Primary School Net	75%
	Enrollment Rate	
	Primary School Pupil-Teacher	26.7
	Ratio	
	Number of Primary School-	43,405
	Age Children Out of School	
	Secondary School Net	26.3%
	Enrollment Rate	
	Secondary School Pupil-	16.2
	Teacher Ratio	
	Number of Secondary School-	56,205
	Age Teenagers Out of School	
Human Development Indicator	Human Development Index	0.5910425

Table 2 Source, Kajiado County CIDP 2017-2022

#### **CHAPTER 4 METHODOLOGY**

#### **4.1 OVERVIEW**

This chapter describes, in detail, the types of data sought, sources of such data, the subjects targeted for the study, methods of data collection and data analysis. All these informed by the project objectives. A summary of the methodology presented in the form of a data needs matrix below. The methodology shows the stages followed while undertaking the project. To achieve the purpose of the study, I will use both primary and secondary data as the methods of collecting data. Household, institutional and business questionnaires, oral interview schedules, observation guides, photography, as well as a critical and systematic review of literature will be applicable. However, several opportunities study can give rise to sustainable Kiserian Market. If only, there is a joint effort with all relevant parties. All these forms of data collection acted as a joint link between the people and the relevant authorities.

#### **4.2 DATA SOURCES**

The data above got from both primary and secondary sources. The physical and environmental characteristics of the area gathered through site analysis. The major instruments of collecting this data were observation, field sketching, photography and institution and business questionnaires. The only information got through interviews of Key informants was that on the major issues affecting the management of the Kiserian market. The development control and this was specifically from the county government of Kajiado. The other data sourced from various secondary materials. The major policies that were of critical consideration included the Kenya Vision 2030, Draft land Policy (2012), and the Kajiado County Integrated Development plan 2017-2022.

#### 4.3PRIMARY DATA COLLECTION

#### 4.3.1 Nature of Data collection

These are types used to capture first-hand information from the field, for this study there will be the use of interviews, photography, field sketching, and observations, these are discussed below;

#### 4.3.2 Interviews

There those to be talked to one-on-one. The respondents interviewed were majorly the key information some of whom include government institutions like County Council of Kajiado (Departments of Planning and Markets development). Besides that, interviews were conducted by administering questionnaires, specifically for the business vendors in Kiserian Market.

#### 4.3.3 Photography

This entail taking pictures of various phenomena for illustration purposes. The major features that captured through photography will comprise the physical ones e.g. buildings, drainage systems, people undertaking various activities in the market among others. Nonetheless this research project focused in capturing the above human activities that primarily affect the management of Kiserian market.

#### 4.3.4 Observation

This will involve capturing observable variables and recording them down. Some of the aspects that observed included market user behaviors, market challenges towards the environment amongst others. This becomes important in identifying gaps and challenges facing the market.

#### 4.4 SECONDARY DATA COLLECTION

#### 4.4.1 Methods of secondary data collection

This involved reading of books, journals, periodicals, and reports written by previous researchers on relevant areas. I also reviewed policies and legal documents guiding urban market management, existing policies, and the Kenyan constitution.

#### 4.5 RESEARCH DESIGN

The study was both qualitative and quantitative (a descriptive) research that sought to assess the existing institutional policy frameworks for urban management in the study area as well as exploring the urban management challenges facing the area of study. Through the insight

from the comparative study, the research also sought to explore the available opportunities for the sustainable urban management of the town. Some subjects not observed in any other way; for example, a social case study of an individual subject is a descriptive research design and allows observation without affecting normal behavior. A case study is considered an in-depth study of a particular situation rather than a sweeping statistical survey (Mugenda & Mugenda, 2003).

It is also useful where it is not possible to test and measure a large number of samples needed for more quantitative types. The results from descriptive research is not a definitive answer or to disprove a hypothesis. Moreover, if the limitations are comprehensive, they can still be a useful tool in many areas of scientific research. The design is appropriate to the field study, the urban management, which is too broad and dynamic and therefore the need to narrow down the research through a case study.

The research was also unique as it tried to explore the possibility of converting the numerous urban management challenges facing the Kiserian market into opportunities that would give rise to a more viable, livable, functional and sustainable urban form through an indepth comparative case study.

#### 4.6 Simple random sample

A simple random sample is a subset of a statistical population in which each member of the subset has an equal probability chosen. A simple random sample means to be an unbiased representation of a group.

An example of a simple random sample would be the 61 people chosen out of a crowd of approximate 1000 business owners in the market. In this case, the population in the market is proximality 5000, and the sample is random because each person has an equal chance of choosing. Random sampling used in science to conduct randomized control tests or for blinded experiments. In essence, in this research study, this method is suitable.

The initial reports from the county gives an approximate figure of a market that accommodate around 5000 people in that concentrated place. This therefore became my study area and pick a sample size of only 61 business persons vendors who were chosen randomly to respond to the business questionnaires. The questionnaire conducted concerned mostly on the state of the

business, some of the pressing issues affecting their normal working at work. This helped to Reduce the Chances of bias, the approach was having an interval of 5 people in a market setup in Kiserian market. This approached played well in collecting appropriate data without compromise of interest. The random sampling method deemed appropriate due to the unplanned changes. For calculation by hand, the formula below used:

Sample size =

$$Z^{2}X(p)X(1-p)$$
sample size =
$$C^{2}$$

Where:

Z=Value (e.g.1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal Not clear, 5,000 comes in as a large sample size to be used in getting the working sample size

(5000 used for sample size needed)

c =confidence interval, expressed as decimal

$$(e.g., .04 = \pm 4)$$

The sample size is 61

#### 4.7 Purposive sampling

Purposive sampling is a sampling technique in which the researcher relies on his/her judgment. This sampling method places primary emphasis on saturation (i.e., obtaining a comprehensive understanding by continuing to sample until no new substantive information acquired). This sampling technique typically used for qualitative studies. Usually, the sample investigated is

quite small, especially when compared with probability sampling techniques. In essence, Kiserian Market will be a case study in sampling the data. The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which best enable you to answer my research questions.

#### 4.7.1 Advantages of Purposive Sampling (Judgment Sampling)

- 1. Purposive sampling is one of the most cost-effective and time-effective sampling methods available
- 2. Purposive sampling may be the only appropriate method available if there are an only limited number of primary data sources who can contribute to the study

#### 4.8 Methods of Data Analysis

This is whereby the data collected will be cleaned, sieved and synthesized for meaningful interpretation of findings. Qualitative data analyzed through logical reasoning keyed in to fit the research objectives, while quantitative data will be analyzed using Excel and SPSS programs. Spatial data will be analyzed using GIS tools.

#### 4.9 Methods of Data Presentation

Data presentation is the ideal representation of what gathered in the field by painting a clear picture of the issues on the ground. The main methods of data presentation will be graphs and pie charts for analytical data from fieldwork. Spatial data analyzed by the use of maps, sketches and drawings will be used for design data presentation and interpretation.

Re-write this chapter so it reflects what methodology YOU used.

# 4.10 DATA NEED MATRIX

Project	Data Needs	Forms	Uses of Data	Source
Objectives  To determine the context of the existing policy framework applicable in the urban management of Kiserian Market	Legal frameworks and policies guiding the management of Kiserian market towards sustainability	1. Descriptive 2. Qualitative State your specific methodology	1) Used in the analysis of the environmental status towards a sustainable and livable environment. 2) Ensuring that proposals are of value in attaining the county development goals	Policies reviews, laws.
To determine the urban management challenges facing Kiserian Market.	1)Catchment population size and human traffic characteristics in the market 2)Environmental impacts the extent	<ol> <li>Numerical</li> <li>Descriptive</li> <li>Qualitative</li> </ol>	Used to address and come up with mitigating measures in the management of Kiserian market	Site observations, photographs, field surveys, household questionnaires
To explore some of the possible solutions in the urban management challenges for the Kiserian market based on the new constitution.	1)Institutional framework for market development 2)Stakeholder involvement	Descriptive	To help ensure that the legal conditions in Kiserian market management and those concerned with their effective operation are well established	The 2010 Kenyan constitution, physical planning handbook, county CIDP

Table 3 data matrix (Source researcher 2019)

#### **4.11 Methodology Limitations**

The following limitations faced during the project:

- 1. There was time experienced as the time involved in the collection of data was not enough but I managed to gather relevant information to fit my objectives
- 2. Non-co-operative respondents- There was also a problem of respondents being incooperative, some refused to give information as they feared the researcher was collecting information to avail to the county government for action. Through the formal documents I had, I managed to go through having a copy of a valid permit from the department of environment
- 3. Financial constraint The research work curtailed by a lack of sufficient funds to adequately conduct a scientific sample; this might have resulted in a problem of representativeness in the responses received.

#### CHAPTER 5 RESEARCH FINDINGS AND DISCUSSION

#### 5.0 Introduction

This chapter outlines the data findings as collected and analyzed. This analysis has been done in line with research objectives, their data needs being the information collected through carrying out business and household questionnaires, administering interviews to the county government of Kajiado, fetching data from secondary data policies and the Kenyan Constitution 2010. The data will play a key role in aligning the final proposals and solutions concerning waste management issues of the market. In the same breadth, business questionnaire had individual objective and targets in each question thus helping capturing the relevant information. The individual questionnaire administration is trying to showcase how the people interacting with the environment under the watch of the county regulations.

#### **5.1 Response rate**

This research study had a sample size of 61 respondents who were involved in both genders. Therefore 44% were male and 56% female. Out of this sample, size 52 questionnaires filled through simple random sampling. The rest 9 questionnaire never captured relevant information as there were no response to interviewed personnel this happened during data cleaning. Others had issues concerning the confidentiality of the information as many were shy to voice out the issues. In order to achieve this a random sampling method was applied, as I went in an interval of skipping 5 business persons in a liner row, until the target achieved. During data cleaning I had various consideration if the information captured where really in line with my objectives which had more upper hand in credibility of information.

#### 5.2 Demographic characteristics of the respondents.

To establish a clear indicator of the study, demographic characteristics collected. The respondents' age, the income of the business, the challenges affecting their business were the guide towards objective three of the environmental challenges.

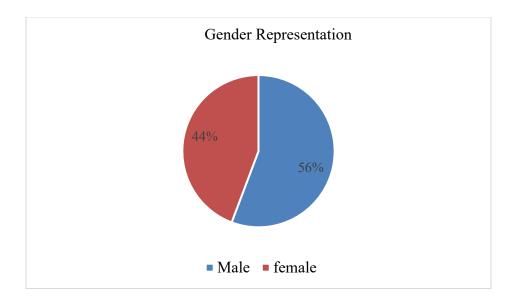


Figure 5 Pie chart showing, gender distribution (source: Author 2019)

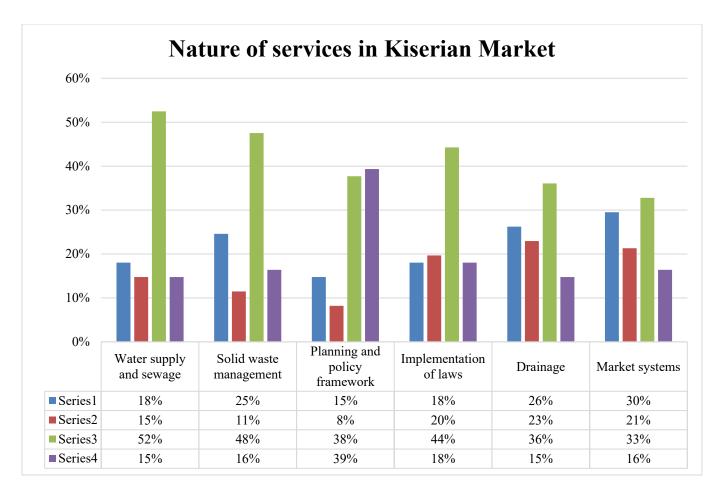


Table 4 a bar graph showing the nature of services in the market (source author 2019)



## 5.4 Challenges Facing the Urban Management of the Area of Study

The challenges facing the management of the study area range from service provision to urban Development and management policies. Governance and urbanization issues are also perennial challenges, which have affected the quality of life for the residents in the area of study.

The dynamic findings established that the majority of the residents of the study area consider the provision of basic urban services such as water supply, waste management, and market services as poorly structured and ineffective to satisfy their needs.

#### 5.4.1 Solid Waste Management Which research instrument did this come from?

The method of disposing of solid waste in the market described as open dumping. Currently, the market solid waste generated from within the market dumped on sporadic private lands scattered within the immediate and distant neighborhood. There is no proper schedule even for the sporadic waste collection as there is only one garbage truck serving the entire Kajiado sub-County. During rainy seasons when most roads are impassable, the garbage truck never shows-up. The point where the waste dumped in the town has also become an environmental and health hazard to the town residents especially the ones living next to the dumpsite as well as the roaming livestock in the town.

The dumpsite also poses security threats to the residents. Nonetheless, the open dumping ground is close to one of the seasonal streams that serve as tributaries to the all-important River Kiserian. This mode of disposal exposes the refuse to surface runoff which ends up sweeping the toxic wastes into the nearby water bodies ending up polluting them. The solid waste collection, treatment, and disposal, therefore, remain a major urban management challenge in the area. The county responds slowly in containing the issues and the residents says that most of the county reforms haven't been implemented as such. Thus, having the gaps that need intervention in addressing the solid waste management. The county issued a circular to the residents on collective cleaning day for the market but that hasn't happened, instead individual groups and organization chip in to clean up.

#### 5.4.2 Open-Air Market Space: Which research instrument did this come from?

The current designated space for the open-air market is inadequate and not in bars with the rising number of people in the town. This has seen most traders spill over to the adjacent roads within the township. This has led to a crisis among the traders, road users and the residents of the town. The market itself has substandard and inadequate facilities (stalls, pit latrines, etc.) and has limited space that does not cater to all the spatial needs of the traders. This becomes the second challenge affecting the business person and the residents whom the feel they are more left

out. The county government by its stand mentions that, the allocated space is more enough to accommodate the business person and the hold the virtue that it is ideal in centralizing the business. The issue of temporary market stalls with no standards tend to consume a lot of space in the market thus proposing a well-constructed stall equal in size for each one.

#### 5.4.3 Poor Urban Governance, Which research instrument did this come from?

Urban governance is one of the dimensions of sustainable urban management, plays a critical role in coordinating other dimensions of urban management, and provides a platform for Vision-making processes that affect the urban management process. However, urban governance in the study area characterized by several challenges including. In line to my finding through the questionnaires, some emerging issues about poor management and urban governance evidenced by the date collected in the questionnaires, the following are some of the findings.

- 1. Ineffective revenue collection and accounting systems,
- 2. Corruption and unemployment,
- 3. Limited leadership capabilities and leaders' level of education),
- 4. Limited public participation in the affairs of the town (from the repressions in the focused group discussions, many of them are disillusioned of the importance of their participation due to past experiences),
  - 5. Lack of accountability structures and general apathy among the residents.
  - 6. Social exclusion, an inadequate workforce, ineffective institutional arrangement.
- 7. Poor management strategies, weak and ineffective policies and programs that are not in keeping with the realities on the ground.
  - 8. Poor service delivery, low awareness levels on existing urban management.

All these factors are evidenced in the way the market is being managed having gaps in management of the county, concerning what most resident business people say, the county government thus must have a collective development of participatory development and an open-door policy to hear what most resident has to say. This will pick up in addressing the burning issues and have a way forward in assisting them.

# 5.4.4 Spatial Conflict within the Business Operational Area Which research instrument did this come from?

The study established from the questionnaires and views collected from the residents about harmonization of issues collected. Kiserian Market Center space is in conflict with itself. Due to lack of prudent spatial planning, parking and public places are few and very congested making business operations very hard to manage. The area is synonymous with business/pedestrian/vehicular/animals/cyclists and related spatial conflict, which has grown from bad to, worse as urbanization, continues at an unprecedented rate. During the study, I noticed that the conflict intensifies during market days and the evening rush hours when the Nairobi & environs' working-class converge with local and visiting activities. The town becomes so infringed to the extend causing jam, as the market is located at the central business district. As per the concerns raised by the business owners, the issue of county askaris are always absent to contain the issue, "we see little from the county just collecting parking fee and business fee" as one of the interviewee records. This rises several questions concerning the management of the town.

In addition, the said reforms by the county government of Kajiado has not had much representation in line to what their policy concerning to review their boundaries and space usage in the town. The town and the market have been left with less management having inappropriate development. The issues of building standards approvals by NEMA is evidence that most developer buildings have certified documentations but their spacing still conflict with spatial planning.

#### 5.3 Policy, Legislative and Institutional Frameworks for Urban Management in Kiserian

Land is critical to the economic, social and cultural development of Kenya. It is crucial to the attainment of economic growth, poverty reduction and gender equity. It is estimated that 32.3% of Kenyans (70% of which live in informal settlements). This data is according to the 2019 census. Most live in some 108 designated urban centers with populations ranging between 20,000 and 7 million. Kenya is experiencing rapid demographic and spatial transformation which has caused challenges for towns and cities, especially small and medium-sized, where capacity is typically inadequate to cope with major urban challenges. These challenges include climate

change, poor waste management, resource scarcity, slum growth and increased poverty, and safety and security concerns.

In Kenya, urban planning is understood to refer to physical land use planning, consisting of three key elements: first, an overall framework, usually a master plan, second, a set of planning and building standards and regulations and third, a development control system. In efforts to ensure sustainable urban planning and design, Kenya is focused on achieving sustainable urban planning and design through various legal and institutional frameworks. In order to play its rightful role in expanding opportunities for urban development, urban planning in Kenya needs to be streamlined and made responsive to the rapid rate of urbanization by ensuring timely service delivery and implementation of plans.

The management of the 175 Local Governments in Kenya has completely relied on the Local Government Act Cap 265 of the Laws of Kenya. Currently, the legislations that apply to the management of the town include the Local Government Act Cap 265 with the spatial planning aspect under the jurisdiction of the Kajiado County council guided by the physical planning Act Cap 286. These two Acts are in-turn operationalized in consonance with a host of other statutes such as the Constitution of Kenya 2010, Environmental Management and Coordination Act (1999), Water Act 2002, Forest Act 2005, Waste Management Regulations (2006), Water Quality Standards Regulations (2006), Physical Planning Act (Cap 286), Cities and Urban Areas Act (2011), County Government Act (2012), Draft Air Quality Regulations (2008) among others.

Sectoral statutes characterize the current legislative policy framework applicable to the management of the town. The urban management of Kiserian market has been of existence, since the inception of the market, there have been reforms in the original plan policy under the physical planning act cap 286 that proposed the market be the hub for pastoral business since most people were the Maasai community. the plan was to host a small number of populations, this however developed gaps as the population grew and now turned into an open-air market, operating daily. The people increased but the policy was never followed to the latter. Intervention to rehabilitate began in 2012, under the new constitution of having devolution in counties. This led to a slow shift in management leaving the market in worst state currently environmentally.

#### **CHAPTER 6 RECOMMENDATIONS**

#### **Summary of Research Findings**

To begin with, my focus point has been the objectives, to determine the urban management challenges facing Kiserian Market. To determine the context of the existing policy framework applicable in the urban management of Kiserian Market. Finally exploring some of the possible solutions in the urban management challenges for the Kiserian market based on the new constitution. The main goal of this project was to develop an integrated land use urban market strategy. Aspects of integration that have thus come up include the integration of various prospects. Through this research process, we have seen how urbanization degrades the environment when there is less consideration of sustainable development. The market situated in the central part of the town this as well as effects the general functioning of the town.

The sampling methods used (Purposive and simple random sample) and questionnaires (Business and institutional), this became helpful in making the objectives attainable. The findings being there is a lot that needs doing to make the market great again. Several indicators of environmental degradation evidenced in poor solid waste and congestion being the main challenge the market faces in conclusion, the assigned actors should join efforts in ensuring there is better management of the town.

#### **6.0 Short Term Recommendations**

#### **6.1 Participatory**

Improving technical capacity to plan and manage cities Capacity-building and institutional development should aim at empowering all interested parties, particularly County government, the private sector, the cooperative sector, trade unions, nongovernmental organizations and community-based organizations to enable them play an effective role in shelter and human settlements planning and management. The training should be guided by the principles of accountability, transparency and broad-based public participation on policy formulation and implementation by Governments. Accountability and transparency are

imperative in order to prevent corruption and ensure that the available resources are used to the benefit of all people. In addition, proper management of cities requires having proper structures coupled by good leadership.

Advocating for participatory urban planning is essential, considering the state at which the market has for the past years managed. Meaning that the planners include the whole community, the county government of Kajiado, policy makers and opinion leaders in the planning process. This grassroots approach increases the legitimacy of new urban developments who could better judge plans and contribute additional ideas to urban planning than the people living within the market place. The aim is to find a consent or satisfactory compromise between the many different interests and conflicting groups that make up a neighborhood. Together, alternative or new ideas are developed. Nonetheless, this solution is being recommended by the UN to most countries.

Participatory mapping is a tool used to propose area location for Kiserian market. Modern cartography tools are combined with the spatial knowledge of local residents who draw or create a map of their neighborhood. Thereby, new information can be discovered that is often not visible on Google Maps or other conventional maps. It is possible to highlight certain elements, problems or social issues on these maps. Often, traditional boundaries, access to resources, sacred places and other culture-specific topics are depicted very well on these maps.

Apart from the technical process of creating the map, this approach also serves to give participants a space to discuss given or new planning issues. By observing the discussion, a new understanding of social connections and organization can be gained. Through this the county government will act appropriately.

#### 6.2.1 Intergrating urban planning in tariatry institutions.

The Universities have broadened their curriculum to include courses on urban planning to provide continuous training to the local elected officials, managers and professionals on urban related issues, such as planning, land and resource management techniques and finance. There should be a promotion of policy dialogue among all levels of government, the private, community sectors and other representatives of civil society to improve planning and implementation as stipulated in the Constitution. Some of the actions that need to be effected include:

- Professionalism and ethics should be upheld for effective planning and management of urban areas. This will help enlighten most of the poeople on waste management practices.
- Rewards and incentives would result in creativity and innovation in urban planning. This will motivate investors to utilize the space areas as they consider spacing.
- 3. Political goodwill to support the planning process and implementation is required. The county government of Kajiado should create a leeway with a good will politically for development.
- 4. Policies that encourage access to land and property for development are more effective in managing urban sprawl as opposed to those that encourage ownership.
- 5. It is essential to have public open places for effective urban mobility such as walk ways and proper selling stalls with utilities like toilets and changing rooms to avoid waste disposal.
- 6. Participatory planning enhances success in service delivery and projects.

#### **6.2.2 Waste Management:**

- a. To solve the challenge of poor and ineffective waste management in the area of study, there is a need to; privatize solid waste management in the town.
- b. Initiate community-based solid waste management organizations/groups/units to participate in the door-to-door collection and transportation of solid waste in the area.
- c. Identify a designated market solid waste disposal site and liquid waste treatment site in the town.
- d. Promote the 3Rs of waste management in the town (i.e. Reduce, Reuse and Recycle).

#### **6.2.3** Urban Management Statutes/Legislations:

- a. Due to the sectoral nature of the existing urban statutes/legislations, there is a need, to identify all the sectoral urban management statutes and consolidate for their harmonization in a "single document" in a manner and language that is easily comprehensible by the implementing agencies and the locals.
- b. Harmonize the existing sectoral statutes relevant to the urban management in the area into comprehensive urban management legislation to provide a one-stopshop for the urban management process-taking cognizance of the current urban demands in the study area.
- c. Involve the public sector in the identification and harmonization of such statutes. This will promote the sense of understanding and invite the requisite goodwill and support from the public in the involvement of the public as a model of integration in sustainable development.
- d. In the Kenya constitution 2010, Section. Environment every person has the right to a clean and healthy environment, which includes the right. To have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69: and 70. In essence, I suggest the implementing agencies should join the effort in making mobilization to have a conservative culture. This achieved by proper actions and yearly activities to ensure sustainability.

e. In article 70 subsections 2. States that, every person has to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. The public at large should be in a joint effort and having one purpose in ensuring there are proper developments for infrastructure in the market are up to standard so that they may not have an environmental impact to them.

#### 6.2.4 Urban Development/ Management Policies and Governance:

- a. The study established that there is a lack of urban development policies in the area of study. This has adversely affected the proper development and management of the market. There is a need to review urban development policies in the light of existing urban priorities and strengthen urban management in central and/or county Governments;
- b. To address Millennium Development Goals 1 and 7 (target 11), more accurate information on the dimensions of urban poverty and develop squatter or informal settlement policies should be developed to improve the social and environmental conditions of settlements while recognizing the desire of people to live in the area of study.

#### **6.2.5** The New Constitution

In the Kenya Constitution 2010, Chapter Two Section.42 the Constitution of Kenya (2010) proclaims that every person has the right to a clean and healthy environment have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69: and 70. However, the situation on the ground is far from close to what is on paper. Kiserian Waste management continues to be a major problem which need actors.

Obligations relating to the environment fulfilled under Article 69 subsection 1 part (d). This encourages public participation in the management, protection, and conservation of the

environment. Through various interventions in a joint effort with a guide of a participatory approach. This ensures there is proper management of the urban market towards a better working condition of the market. Various stakeholders are locals, the county government, lead agencies, and local leaders. The national government through the ministry of the state department of housing and urban development and the policymakers coming together in resource allocation is also important in the management of the Kiserian market.

In article 70 subsections 2. States that, every person has to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. The public at large should be in a joint effort and having one purpose in ensuring there are proper developments either infrastructure in the market are up to standard so that they may not have an environmental impact to them

#### **6.3 Long term recommendations**

#### **6.3.1** Relocation of the market

The design of the Kiserian market based on a modern urban market.in my view, I suggest Relocating the location of the market just within the town boundary but outskirts of the CBD. This achieved through successful medium-density development offering alternative market stalls. The design will combine to create a unique place to live and work close to the town. It avoids domination by private vehicles by creating narrow streets and semi-public squares that give priority to pedestrian movement. Relocation of the market along the Ngong-Kiserian road and adding several trees add to the character and identity of the development. This by far would reduce traffic jams both people and vehicles. Rent rates affordably reduced as compared to CBD rates, which will be beneficial to the traders. For this to be attained, two phases to be followed, where the proposed is to be constructed until completion. The second phase relocates people to the new site to avoid any loss or inconveniences. Strict adherence to the building standards of the stalls developed with proper environmental systems followed will bring a sustainable market. The county government of Kajiado will be the main actor.

#### **6.3.2** Partnerships in Urban Development and Management:

- 1. Public-Private partnerships are crucial in the urban management system. Such partnerships are crucial in urban infrastructural development and management, as well as efficient and effective urban service delivery. Given this, there is need to form new partnerships with governments and civil society in general and community-based organizations in particular to assist urban infrastructural and community development as well as the social well-being, there should be a joint effort also between the national government and the county government
- 2. The land is a crucial factor in the sustainable management of an urban area. There is a need to form working partnerships with landowners within the area of study. This encourages the involvement of landowners in urban planning. Finally, seeking effective controls on land use in the area study.

#### **6.3.3 Social Inclusion in Urban Development and Management:**

- 1. Social inclusion plays a significant role in a participatory approach to urban management. Such inclusions create a sense of understanding, belonging and ownership among the public. This enhances compliance that is required for the sustainable management of the market, especially within the confines of revenue collection. In this regard, there is need to improve representation in local urban governance within the study area, particularly of minority interest groups, including youths, people with disabilities and women and seek to improve local management structures and systems to assure more effective consultation with and among community- interest groups;
- 2. Encourage regional agencies, United Nations bodies and multilateral donors to endorse and support local urban development and management agendas within the study area, and develop partnerships to implement such agendas, and ensure that urban management issues regarding the study area raised and debated in bilateral and regional forums.

### 6.4 Intergrated Environmental management plan for Waste Managemnt Plan

Integrated solid waste management plan includes source reduction, source separation, recycling and reuse as well as materials recovery. The waste materials that remain should be safely disposed into a sanitary landfill. However, Kiserian market is at primitive stage of poor waste development at which solid wastes are disposed of in a manner that does not protect the environment, susceptible to open burning, and exposed to disease vectors and scavengers. Lack of adequate waste treatment and disposal infrastructure, large volumes of waste involved in market area. Secondly, proximity of disposal sites and ever-burgeoning residential areas even in the proximity of waste disposal sites has given rise to significant environmental deterioration and health impairment in most of the cities (Kurian et.al., 2015). Below is a flow chart on how waste need to be handled from inception to its final stage that will not compromise the environment. The first stage is the disposal which most of the market traders has less disposal points thus the risk of careless disposal.

Secondly, the recovery or the collection of undisposed waste in the right place, waste handling is so important in this stage as some maybe corrosive and harmful. Sorting the waste in different categories is always done at this stage, there are three forms of waste that is solid, liquid and gaseous waste. The third stage is recycling of waste, after proper sorting there are waste that can be recycled and be used in other forms, in this instance water. The fourth stage is the ruse of the recovered waste and proper utilization in order to avoid waste. The last stage is the prevention, its always better to have a preventive measure if there is a probability of something happening. This measure come in place to break the link on how waste can be disposed on open environment. These include installation of designated waste points, public awareness of proper waste management. Regular environmental cleanups and tree planting to improve the environment sustainability.

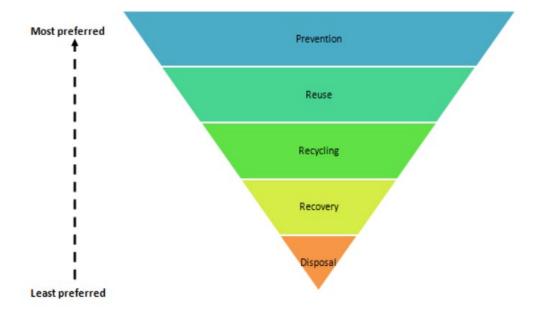


Figure 2.1: Waste management hierarchy
Source (UNEP, 2011).

#### 6.5 Areas of further study

#### 6.5.1 Stakeholders and their specific roles in urban management:

Several stakeholders exist within the confines of effective urban market management. Among the recommendations made by this study is that there is a need to involve all the relevant stakeholders in the urban market management, to enhance participatory urban management. It is therefore imperative that future studies explore the various stakeholders and their specific roles in the urban management system.

Globally, many cities around the world, effective, functioning policy measures have been elusive and the resources invested in the sector inadequate. National governments can make a critical contribution by making waste management a national priority (United Nations Environment Programme, 2013). The collection of waste is a public service that has important impacts on public health and the appearance of towns and cities. It is one of the important obligatory functions of any urban local authority. It refers to all activities pertaining to the

control, collection, transportation, processing and disposal of waste within a town in accordance with the best principles of public health, economics, engineering, conservation, aesthetics and other environmental considerations.

Waste management is one of the most difficult environmental problems in any urban centers in Kenya, where services are often grossly deficient, especially within low-income settlements. Often these settlements comprise a sizable proportion of the town's area and population – as much as half in some cases. Rapid urban growth, accompanied by the increasing density of population, traffic congestion, air and water pollution, increasing per capita generation of solid waste and the lack of land conveniently situated for waste disposal, all point to a rapid further aggravation of the already acute problems of solid waste management. Future demands are certain to increase as Kiserian residential, commercial and industrial sectors expand and as economies develop.

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Please arrange the references in alphabetical order.

# Appendix 1

# COUNTY GOVERNMENT OF KAJIADO QUESTIONNAIRE.

1. What was Kiserian intended to be?
2. Is the intention still the same
?
3 if not what has
changed
?
5 is the changed planned of self-
inviting
?
6 what are the measures and plans that has been put by the county government to address the issues
7
market
8 what are the barriers limiting the growth and management of Kiserian market
?
9 how's the performance of the Kiserian market compared to other neighboring towns like Ngong, OngataRongai

?	
10 comment on Kiserian contribution towards the county government revenue collection	
11 what are your views on addressing the Kiserian market management	
	9

# Appendix 2

# BUSINESS QUESTIONNAIRE FOR KISERIAN MARKET

1 For how long have you been doing business in this town.
2 How do you describe the behavior of customers in this market in terms of purchasing power, consumption patterns, and credit worthiness
3 As a business person, how do you contribute towards the sustainability of Kiserian Market?
4 What are the major challenges facing the Kiserian market  1. Economic
2. Social
3. Environmental
4. Others specify
5 Are you aware of any existing policies and laws that govern the management of the Kiserian market?
6 If yes how effective is the implementation
7 Does the county government respond timely on issues concerning Kiserian market

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If yes rate them(good, fair, bad)	
8 What available opportunities are found in the market to help in the management of k	Kiserian
9 What are your views and the practical solution you would like the county government	nt to act on

THANK YOU.

#### Appendix 3 Household questionnaire

1. Background Information:

please fill in the information below

level of education

- a) No education
- b) Nursery
- c) Primary
- d) Secondary
- e) Collage/University
- f) Don't know
- 2. Sex a) Male b) Female.
- 3. Economic Activity/ Profession

Total Income per month

Household Expenditure per Month

- 4. Policy and Legislative Framework:
- a) Are you aware of any legislative and institutional polices from the county government of Kajiado in managing Kiserian market center

Y e s..... No .....

- b) If yes, how effective is its /the implementation part?
- c) How can you the implementation be improved in attaining the sustainability of the market?
- 5. County Council and the People:
- a) what do you consider as your obligation towards the county government in line with implementation of the plan for Kiserian market.
- b) how will you rate the level of services offered by the county towards their residents? (please tick where appropriate)
  - Fair
  - Good
  - Poor
  - Very poor
  - Worse

The following services

# Water supply and sewerage

- Fair
- Good
- Poor
- Very poor
- Worse

#### Roads

- Fair
- Good
- Poor
- Very poor
- Worse

## Poverty alleviation program

- Fair
- Good
- Poor
- Very poor
- Worse

## Solid waste management

- Fair
- Good
- Poor
- Very poor
- Worse

#### Health care

- Fair
- Good
- Poor
- Very poor
- Worse

# Education

- Fair
- Good
- Poor
- Very poor
- Worse

Development control	
• Fair	
• Good	
• Poor	
• Very poor	
• Worse	
Drainage	
• Fair	
• Good	
• Poor	
• Very poor	
• Worse	
Security	
• Fair	
• Good	
• Poor	
• Very poor	
• Worse	
Others specify	
c. What are your dissatisfactions in line with provision of services by the county	
county	
d. how can these services be improved in the market to serve the residents	
well	
e) Kindly describe your relationship with county government	
PositiveNegativeFair	
6. What are some of the challenges facing Kiserian market in management?	
<ul> <li>a) Political Challenges:</li> <li>b) Environmental Challenges:</li> <li>c) Economic Challenges:</li> <li>d) Socio-Cultural Challenges:</li> <li>e) Other (Specify):</li> </ul>	

THAK YOU FOR YOUR PARTICIPATION.

b) In your opinion how can we overcome these challenges	?
Opportunities:	
Sustainability:	
7. Way forward:	
a) In your honest opinion what need to be done to ensure the market is well managed?	