

**AN ASSESSMENT OF DEVELOPMENT CONTROL SYSTEMS IN
VIHIGA TOWN – KENYA**

BY

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DECLARATION

I, Raphael Mugenge Kahi, do hereby declare that this thesis is my original work, and to the best of my knowledge has not been presented to any university for examination or any other purpose.

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B63/68696/2011

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Declaration by the Supervisors

This thesis has been submitted for examination with our approval as the University Supervisors.

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Dr. Samuel Obiero

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Above all, I thank Our Almighty God for His love, grace, protection and guidance.

DEDICATION

This thesis is officially
dedicated to my best friends
Betty Ondisa, Sammy Alvin Kahi,
Melvin Kavogoi, Phlevia Kageha
Phidelia Kagai, Precious Kadiga and

Princeton Kabaji

for their love,

encouragement

and support.

God bless you all.

ABSTRACT

Development control is aimed at encouraging the use of land resource in a way that promotes prudent management of the natural environment. It calls for regulatory actions to mitigate against negative externalities from the use of land in rural, urban and pre-urban areas. These regulatory actions should be based on clear assessment of the capacity needed to implement them. The regulatory actions are referred to as development control measures. As noted FAO (1993), such measures are crucial because, Land resources are limited and finite. If human populations continue to increase at the present rate there will be twice as many people in the world in about 60 years. There is therefore an increasingly urgent need to match land types and land uses in the most rational way possible, so as to maximize sustainable production and satisfy the diverse needs of society while at the same time conserving fragile ecosystems and our genetic heritage. Uncoordinated development, poor planning and management of land and its use is a major challenge in urban areas. An efficient and effective development control system is a pre-requisite to a vibrant land market that will trigger economic development.

Several factors were checked to determine the causes of ineffective land use planning and development control. The achievements of the Local Physical Development Plan of Vihiga Town were identified and evaluated. The challenges were examined with the intentions of finding interventions to the constraints and proposal as to the way forward so as to achieve effective local physical development planning and development control.

Literature from other researchers, existing laws and set policy guidelines was reviewed. This formed the theoretical and conceptual framework of the study. Useful data was obtained through observations, interviews, administration of questionnaires to the subjects which included government officers, market committees, property owners and the general household. The data collected was analyzed using SPSS, then sorted using descriptive statistics and presented using descriptive tables, photographs, maps, charts and narratives.

It was established that the county government of Vihiga has no development control policy and guidelines that guide approval of development applications. It has turned enforcement effort to an act of revenue collection. There is generally weak institutional capacity to deal with enforcement of development controls. Several challenges to development control were identified. They included ineffective policy guiding development control, unsuitable methodology, delays in approval of development applications, weak institutional capacity amongst agencies charged with development control, political interference and lack of political will, weak legal machinery, and inadequate awareness of development control activities and public participation. Amongst the above challenges, political interference and lack of political will ranked highest. The study ends with conclusion and recommendation based on the findings of the research work. It lays the basis of further research which is suggested.

GLOSSARY OF ACRONYMS

AAK	-	Architectural Association of Kenya
ADD	-	Architecture Design & Development
DCD	-	Development Control Department
EMCA	-	Environmental Management and Coordination Act
ERS	-	Economic Recovery Strategy for Wealth and Employment Creation
FAO	-	Food and Agriculture Organization
GOK	-	Government of Kenya
IAS	-	Institute of African Studies
IDS	-	Institute of development studies
JKML	-	Jomo Kenyatta Memorial Library
KM²	-	Square Kilometre
MCAs	-	Members of County Assembly
MDGs	-	Millennium Development Goals.
NEMA	-	National Environment Management Authority
NHPC	-	National Housing Population Census
NUDP	-	National urban development policy
PDP	-	Part Development Plan
PPA	-	Physical Planning Act
PPA7	-	Enforcement Notice.
UNCRD	-	United Nations Centre for Regional Development
UNEP	-	United Nations Environment Programme

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CHAPTER ONE

INTRODUCTION

1.0 Background to the Research Problem

Local physical development planning is a means to make a difference. It helps make the most out of County Government's budgets by informing infrastructure and services, investments and balancing demands for growth with the need to protect the environment. It distributes economic development within a given region to reach social objectives, and creates a framework for collaboration between County Governments, the private sector and the public at large. It is a framework that helps leaders transform vision into implementation, using space as a key resource for development and engaging stakeholders along the way.

Low density urbanization also referred to as urban sprawl has accelerated in towns in rural centres. This calls for test on the cumulative influence of locally adopted land use controls on sprawl. County governments are likely to rely on valorem property taxes to fund services and infrastructure. This should be done in a way that does not accelerate sprawl.

Land use planning is very important function of a successful urban environment. Land use planning refers to the process by which land is allocated between competing and sometimes conflicting uses in order to secure the rational and orderly development of land in an environmentally sound manner to ensure the creation of sustainable human settlements.

The process of land use planning consists in the main of the two twin functions of Development Planning and Development Control. Of necessity, these two functions must be supported by relevant research and mapping which are also major components of the land use planning process

Given that Land resources are limited and definite, there is an urgent need for development planning and development control so as to maximize sustainable production and satisfy the diverse needs of society while at the same time conserving the fragile ecosystems and our heritage (FAO, 1993). Land use planning and development control are important to this process hence the core purpose of this study. Land use planning should not be seen as a process where planners tell people what to do; it should not be a typical top-bottom situation, should be

interactive. Local physical development planning plays key roles in delivering development. These roles include economic, social and environmental. While planning for prosperity, the local plans are aimed at ensuring sufficient land of the right type and in the right place, so as to allow businesses to set up and grow, and to be supported by infrastructure such as roads. The social roles involve planning for people and places. This is aimed at promoting strong, vibrant and healthy communities by providing for housing, leisure, and recreation facilities, shops and schools. Finally planning for the environment is aimed at helping to protect and enhance landscapes, wildlife, historic buildings etc. It serves also to help ensure that water, minerals and energy are used efficiently. Planning for land use and future development growth is an important activity for county governments. Planning is a benefit to the community. It is a balance amongst competing interests and always involves difficult tradeoffs. The importance of every plan rests partially on the process of preparing and implementing the plans.

Town and country planning has its roots from the public health and housing policies. The nineteenth-century increase in population and more significant, the growth of towns led to public health problems which demanded a new role for government. Together with the growth of medical knowledge, the realization that overcrowded insanitary urban areas resulted in an economic cost and fear of social unrest, this new urban growth eventually resulted in an appreciation of the necessity for interfering with market forces and private property rights in the interest of social justice well-being (Cullingworth, 1988).

Urban and regional planning has evolved over time since its introduction in Britain in about 100 years ago. Town and country planning systems developed in Britain simplistically established planners as producers of land use plans and controllers of development. Implicit in much of the legislation is the view that town and county planning is a political technical exercise concerned with physical development and the protection of the environment, operating within a loosely defined set of constantly changing policies designed to secure social and economic change (Bruton, and Nicholon, 1987).

The statutory land use planning is traced back in Britain (through The Housing, Town planning, etc Act of 1908). The objective of the bill was to provide a domestic condition for the people in which their physical health, their morals, their character and their whole social condition can be improved locally (Cullingworth, 1988). The first revision of this act took place after the First

World War (The Housing and Town Planning Act of 1919) although it did very little in practice to increase the scope of town planning hence further amendments in 1923 and 1932.

In Kenya, The Land Planning Act Cap 303 came into force on 28th June 1968. The main objective of the act was to provide for planning, the use and development of land. This act was later repealed in 1996 by The Physical Planning Act Cap 286.

The relationship between land use planning and policies for social and economic change should be made clear and obvious. Urban planning is a complicated art that deals with issues that are highly inter-related surrounded by uncertainty and are affected by ideology. It is fundamentally a ruthless bargaining process that is concerned with conflicts of the interest and the distribution of limited resources (Buchanan, 1968).

Local physical development plans develop the policies and general proposals of the structure plan and relate them to precise area of land. The plan should be supported by proposal maps. Statutory local plans may take the forms of a comprehensive consideration of matters affecting the development of a particular area, a subject plan which shows in detail the authorities' proposals on a particular issue and an action area plan which is produced for areas where substantial change is expected in the short term period (Bruton, and Nicholon, 1987).

Local physical development planning has a traditional role of plan production and development control. It is also concerned with the allocation of resources in a way which is aimed at achieving policy objectives set out in the plans. The plans aim at providing more positive guidance for property developers and agencies for development control. Local plans have an objective of increasing public understanding of the system and participation in the planning process. The purpose of a local physical development plan is to ensure orderly, coordinated, harmonious and progressive development of the area in order to ensure health, safety, amenity, convenience and the general welfare of the residents. The Plan should indicate specific areas for residential, commercial, industrial and other purposes. It should also determine the type and density of development in any particular area as well as the conservation of the natural beauty of the locality including lakes, rivers, hilltops, summits and valleys if they exist. The plan should also provide for transport and communication routes. It is on this basis that County Governments

declare public streets. Finally they are charged with simplifying planning administration hence Implementation of the plans should be done to acceptable standards.

The system of development control established under The Physical Planning Act provides that all developments require planning permission from the local planning authority. This is very important for the application and implementation of statutory local physical development plan policies. Planning should provide for the location of physical development in urban and rural area in Kenya in order to develop a coherent system of human settlement. A good planning system provides for development control measures. These measures are aimed at reducing possible infringement on freedom of others in human settlement. The Physical Planning Act chapter 286 defines development control, 'as the process by which legal permission is granted for application for development permission to individuals, groups and organizations to implement a development project'. It is applicable both in rural, peri-urban and urban areas. It is an aspect of planning law and must be applied within the province of plan formulation and implementation. The legitimacy of development control is derived from the police power which is exercised by the government. Some of the objectives of development control include:

- a) To guard against developments that might cause injury to both human beings and the physical environment.
- b) To secure proper land use both in the urban and rural areas.
- c) To ensure that development projects conform to the physical development plans.
- d) To guard the surrounding areas against the effects from the development in question.
- e) To ensure that planning standards, rules and procedures are adhered to. (Physical planning handbook, 2008).

The key thinking behind development control in rural and urban development is to regulate development as well as use of land for public interest. Elements of public interest necessitate the use of controls. These interests should be enforceable by law either through the police power, the power of eminent domain or the power of taxation. In American jurisprudence health, welfare, morals and safety are generally recognized tests of public interests (Chapin 1965). However in land use planning, the purposes usually identified with the public interest included health, safety, convenience, economy and amenity. This implies that competing land use interests can only be

moderated by development control measures. Instituted planning policies and guide lines should cater for both individual and the general public.

1.1 Problem Statement

Implementation of local physical development plans and development control policies focusing on key planning and development issues should affect those who work, live and visit this rural centres and in this case Vihiga Town. Regulating use and development control is a global concern. It is clear that if human beings were allowed to live anywhere or use land without control, order and sustainable development might not be achieved. Local authorities are mandated by the Physical Planning Act Cap 286 to implement and enforce physical development plans. This aims at ensuring that physical developments are guided by policy that is consistent with the socio-economic investments path dictated by the development plans. To achieve this, local authorities have deployed various legal instruments to control development within their areas of jurisdiction in order to achieve orderly urban development. Although there is an increase in the knowledge of modern planning and an increase in the number of planners, physical development across towns and cities remains an array of chaos and disorder. Numerous factors account for this situation namely, rapid urbanization, exorbitant real estate rents and prices, lack of executive capacity to implement relevant urban and regional planning laws.

It should however be noted that, local authorities have not adequately enforced development plans. As a result, developments have encroached on road and railway reserves, zonal regulations and building by-laws have not been followed, there is proliferation of informal vendor markets in urban centres and construction of illegal extensions among many other unauthorized developments. Urban authorities have been grappling with unplanned settlements, traffic congestion, pollution and costly public transport systems, with woefully inadequate infrastructure services. This is according to the Kenya Vision 2030, which is the country's new development blue print covering the period of 2008 to 2030.

Vihiga County is one of the most densely populated regions in Kenya with an average population density of 1045 people per square kilometre. This implies that the average land holding per household is very small. This density is rapidly increasing to saturation or over densification stage. The urban centres are growing into the farm lands and real estate is taking up agricultural land. Sub-divisions are evident on the ground but rarely are they formalized hence informality.

The urban population in Vihiga County is of approximately 32%, with an urbanization rate 40%, (NHPC, 2009). Development growth pattern exhibited is majorly linear, following up major roads namely Majengo – Luanda road, Kakamega – Kisumu road and Majengo-Hamisi road. All these leave questions as to whether there is a relationship between set plan policies and what is witnessed on the ground.

Vihiga Town is a planned area and all developments are supposed to be undertaken in accordance with the approved physical development plans of the area. However open spaces that were to house recreational activities no longer exist.

Vihiga Town neighbors Mbale town which is the County headquarters for the new Vihiga County, this then calls for need to mitigate against the negative effects of urbanization. Planning should always be seen at the forefront of development. Planning laws should be enforceable to ensure sustainable development.

The Vihiga Town development plan is supposed to guide development. This has not been the case. Illegal and informal developments should not be witnessed in the study area. Spill over developments that go beyond the planned town boundary can be observed. These developments are likely to create challenges to physical planning and development when the town is expanded. This will also mean that spatial planning will be reacting to urban development rather than directing it.

The plan area falls within several statutory centres of land control. They include The Land Control Act, Cap 302 and The Physical Planning Act, Cap 286 amongst others. There should be a coordinated approach to enforcement of the laws. Vihiga Town is a rural centre that is surrounded by agricultural land. The physical planning Act provides for modalities of conversion of agricultural land into urban use.

Both urban and rural informality should not be evident in Vihiga. Building regulations and bye-laws should be observed fully. There should be no encroachments on road reserves since this in the long run will lead to a dysfunctional town that lack guide to growth. Developers view development control process as a hindrance rather than a means to achieving sustainable developments. This is because of lack of awareness of the development control procedures by the developers.

When plans are prepared and effectively implemented, the outcome is safety and health protection for the general population, amongst other objectives of land use planning. When the contrary is experienced then it is clear that there is a miss in the methodology used in either preparation or implementation of the local physical development plans or both.

Vihiga town connects to all the neighboring counties (namely; Kisumu, Siaya, Kakamega and Nandi) via road. There is a likelihood of urban sprawl to this hinterland from the major towns hence need for development planning and development control. Uncontrolled developments affect growth of towns. Expansion without development planning and control is like development due to pressure from centres or transportation routes. This kind of growth is characterized by urban informalities. Planning should model the pattern of land uses in the town. This study aims at appraising the impediments to effective development control and intends to suggest possible measures that can be put in place to improve development control and guide growth.

These impediments in development control process can lead to high risks in the real estate development projects. If no action is taken to address these impediments to development control within the agencies mandated, the state of the built environment will continue to develop negatively. This study aims to evaluate these complex problems and investigate the legal and institutional frameworks put in place to ensure effective development control.

1.2 Research Questions

The research examines the following questions:

- 1) What development control policy guidelines are used to achieve a well-developed town?
- 2) What strategies are in place to ensure compliance with development control regulations in Vihiga Town?
- 3) What is the institutional capacity of the institutions that are charged with control of land use in Vihiga?
- 4) What are the challenges facing development control in Vihiga County?
- 5) What possible interventions can be put in place to enable effective development control in Vihiga Town?

1.3 Research Objectives

The study objectives consist of the following:

- 1) To identify development control policy guidelines used to achieve a well-developed town.
- 2) To identify strategies in place to ensure compliance with development control regulations in Vihiga Town.
- 3) To assess the institutional capacity of the institutions' that are charged with control of land use.
- 4) To find out the challenges facing development control in Vihiga County.
- 5) To recommend possible interventions that can be put in place to enable effective development control in Vihiga Town.

1.4 Study Assumptions

The study assumes that:

1. Development taking place in Vihiga Town is guided by an approved development plan which is updated regularly.
2. There is a coordinated and participatory approach to land use control.

1.5 Significance of the Study

Vihiga district is one of the densely populated areas within Vihiga County, with a population of 221,294 persons covered on 201 km². The population density is 1,101 which is slightly higher than the average county population density of 1045 people per kilometre square. Due to urbanization, the population is likely to increase further. This calls for effective land use planning and development control to ensure sustainable urban growth.

Population increase puts a strain on available resources including land. Land as a resource is fixed in supply. As population increases, demand for land increases. This demand for more land cannot be countered by an increase in supply of land. Due to this, land use must be planned and controlled. Regulation of land use and monitoring will ensure sustainable development. This study therefore aims at establishing ways of ensuring sustainable use of the land resource through physical development planning and control.

The Kenya constitution 2010 guarantees each individual good environment. This can well be achieved if the environment is well planned and the plans are implemented. Research on plan preparation and implementation will go a long way in facilitating this constitutional requirement. Vihiga Town is a major centre in Vihiga County. Its proximity to Mbale the county headquarters, Kisumu city, Kakamega town, calls for research on growth of this town. It is likely to face the challenges of urbanization.

An in-depth understanding of the level of local development planning and development control in Vihiga Town is important to the County Government of Vihiga. The findings from the study will help the county government to take up and ensure measures are in place to avoid any disaster that might occur as a result of poor planning and development control in future.

Assessment of urban areas and cities and their classification cannot be completed until county governments prepare the required plans. The findings of this study will be of great assistance in completing the exercise as required under section 54 of The Urban Areas and Cities Act, 2011.

The information gathered from the field survey will contribute enormously to the current information on development planning and development control. This research will also form a foundation for further research in the study area hence will be an important source of secondary data for future researchers.

1.6 Scope of the Study

The study focused on the planning and implementation of local physical development plans in towns in rural areas. This study paid specific attention to Vihiga Town in Vihiga County.

The study also focused on the legal and institution capacity of Vihiga county government to control development on the urban fringe. This helped in evaluation of their capacity as an institution and the legal capacity in place for land use planning and development control for peri-urban areas of Vihiga Town. The study also highlighted the challenges facing the control and use of land.

Statutes relating to planning and control of land remain multiple in Kenya today. However special attention was put to specific legislation applicable in the study area. They include:

- The National Land Commission Act No. 5 of 2013.

- The Land Act No 6 of 2012.
- The Land Registration Act No. 3 of 2012.
- The Physical Planning Act cap 286.
- The Land Control Act Cap 302.
- The Environmental Management and Co-Ordination Act No. 8 of 1999.
- The Urban Areas and Cities Act, 2011.
- Public Health Act Cap 242.
- County Government Act, 2012.

1.7 Organization of the Study

The main focus of this study is to examine the effectiveness of local physical development planning and Development Control in upcoming towns in rural areas. Focus was on Vihiga towns, its planned state, current state and future growth prospects. The research is presented in five chapters.

Chapter one introduced the research problem studied, research questions, research objectives, basic assumptions, the significance & scope of the study. Research methodology and study limitation were also covered in this chapter.

Chapter two dealt with the literature review and the theoretical framework of the study. Policy framework were also covered and analyzed. They include the legal and institutional framework supporting development planning and control. Urbanization process in the study area was also discussed in this chapter. Chapter three discussed the background of the study area. Chapter four gives the study findings, the emerging issues and how they affect development planning and control of land use. The data collected was analyzed in this chapter. The analysis gave the plan implementation challenges experienced in the study area. The chapter Zeros in to development control challenges experienced in Vihiga Town. This provides a comparison between what is planned and what exists. Chapter five contains the summary of findings, planning implications of the findings, recommendations and conclusions of the study.

1.8 Definition of Key Operational Terms

Different expressions and words have different meanings depending on where and how they are used. The following expressions and words were used frequently in this research.

1.8.1 Land Use Planning

Land use planning refers to controlling and organizing the development of with a view of minimizing or obliterating the bad effects that may arise thereof (Moseti, 2004). Land use planning in this study refers generally to the process of mitigating land uses and the diverse interests of people. It is a proposal as to how land use development in terms expansion and renewal should proceed in the future while fulfilling the basic needs. Land use planning is used in this study as a development control tool.

1.8.2 Development

The MacMillan dictionary defines development as ‘change, growth, or improvement over a period of time’.

The free dictionary defines development as ‘the act of developing, or a significant event, occurrence or change or group of dwellings built by the same contractor’.

Myrdal (1974) defines development as the movement upwards of the entire social system. The social system may stay stagnant, or it may move upward or downward. It may also "turn around its axis," a complication that will not be commented upon in this abstract and simplified account. The dynamics of the system are determined by the fact that among all the endogenous conditions, there is a circular causation, implying that if one changes, others will change in response, and those secondary changes in their turn cause new changes all around, and so forth. The conditions and their changes are thus interdependent.

The physical planning act cap 286 defines development as ‘the making of any material change in the use or density of any building or land or the subdivision of any land which for the purpose of this act is classified as class “A” development. Unfortunately the PPA does not define what class “A” developments are.

Cullingworth (1988) defines Development is the carrying out of building, engineering, mining, or other operations in, on, over or under land or the making of any material change in the use of any buildings or other. This definition is lifted from The Town and Country Planning Act 1972 section 22(1).

For the purpose of this study, development refers to the socio-economic progress that aims at satisfying human needs, improving the quality of life that is achieved through the modification of the biosphere.

1.8.3 Development Control

According to McLaughlin (1973), control in general system is that which provides direction in conformance of variations from system objectives within allowable limits. Therefore, Development control is the process, laid down in legislation, which regulates the development and use of land and buildings. Development Control serves as a way, whereby, policies are being implemented and unauthorized growth prohibited, promotes county governments to prevent incompatible land uses.

Keeble (1969) notes that, development control is used in context to connote the regulation of the detailed aspects of development above which precise guidance cannot be given by the development plan, so as to ensure convenient results. He further states that the ultimate aim of a plan is to have its proposals implemented and put in practice. These points to the fact that development control is one of the measures applied by the physical planning agencies to ensure that developers do not deviate from proposals of the approved development plans during implementation.

According to Keeble (1969), the need of a plan is that its proposal should be put into practice even though the match of events may need substantial amendment to be made to the original plan before it is fully implemented. The successful implementation of a plan relies upon the extent to which development carried out comply with its proposal. This process is called “Development Control”. It’s an attempt to ensure that what is arranged beforehand is carried out to the letter or decisions are made to reconcile conflicting interest. Keeble (1969, p. 58) states that: Development control can be looked at as the process which secures the compliance of developments by public and private agencies in accordance with an approved planning scheme or development plan.

Development control must be regarded as a coherent system of control rather than codified set of “dos” and “don’ts.” It could happen that certain operations may not be acceptable going by such “dos” and “don’ts.” Analytical consequences of such operation could permit its existence, but if

found to be harmful to the well-being of the individual and the society at large the decision should be otherwise.

Development control as an essential part of the planning system has an essential part of the planning has no other purpose than to secure the right in the interest of the community as a whole (Cullingworth, 1988). It is the community that decides through legislation that the regulatory activity is required.

Development control remains a key planning component that is aimed at reducing possible infringement on freedom of others in human settlement. Development control is the process by which authorities manage the extent and nature of growth in urban areas. Developers wishing to undertake development are typically required to apply to the County Government for permission prior to commencing any development work. Such development control regulations allow authorities to manage land use. It allows authorities to balance competing needs such as allocating land for farming, while accommodating the growth of towns and to protect areas with particular values.

Development is mostly controlled by town planning regulations. There are some requirements of national legislation, but most development control is by locally-based zoning and development provisions, in the form of bye-laws. Landowners or leaseholders wishing to develop on their land must apply for Development Permission, and proposals for development must comply with the requirements. When an application is made for Development Permission (to subdivide land or to build), the proposal is assessed by technical experts within the authorities against the provisions of the Scheme. Applications are assessed to manage potential impacts on roads and traffic; public health, safety and amenity; natural environments and systems; people and lifestyles. From the above it is clear that development control encompasses both administrative and legislative machinery. Fairness, justice and equity should be the watchwords in development control programs. If done properly and in a humane manner, it will be widely accepted. However, when it is haphazardly done with bias and favoritism in the society, it could be explosive and may lead to violent reactions from affected members of the society or communities concerned.

For the purposes of this study, development control refers to the process by which legal permission is granted for application for development permission to individuals, groups and organizations to implement development projects.

1.8.4 Implementation

The Physical Planning Act Cap 286 empowers local authorities to prohibit, or control the use and development of land and buildings in the interest of proper execution and implementation of approved physical development plans amongst other statutory power under section 29 of the PPA.

Plan implementation generally refers to the realization, carrying out or execution of the plan. It is a post planning process. It is therefore the action that must follow any preliminary thinking in order for something to actually happen.

For this study, implementation refers to the post planning actions that are aimed at realizing or executing the plan. It includes development control, monitoring and evaluation.

1.8.5 Monitoring and Evaluation.

For this study, monitoring shall refer to the tracking the implementation of land use decisions and collecting information necessary to evaluate the effectiveness of land use planning decisions.

Evaluation shall refer to the process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and set policies are still valid. This will also help to know whether the plan is being implemented or not.

1.9 Research Methodology

This study is a survey that aims at establishing the effectiveness of local physical development plans in towns within rural areas. This research attempts to describe the situation, problem and phenomenon systematically. It requires the collection of data from samples.

1.9.1 Data Needs

In order to achieve and realize the research objectives, various data collection methods were employed. A reconnaissance survey of the study area was carried out to gather baseline information on Vihiga Town. Two main data types were targeted namely primary data and secondary data.

Secondary data on plan preparation, urbanization, land availability, existing land practices and uses, development planning and control, legal and institution framework, urban and rural development challenges, zoning regulations and policy guidelines was explored with a view of comprehending the nature of the problem and suggestions on the way forward.

Primary data included plot ratios, sizes, household sizes, informalities, plot coverage, building setbacks, land tenure, transport mode, available services, education level of household, community participation in preparation and implementation of plans, challenges faced by the planning authorities during planning and implementation and how successful local physical development planning is in Vihiga Town was collected with a view of understanding the extend of the problem.

1.9.2 Methods of Data Collection

This research relied on both secondary and primary data.

1.9.2.1 Secondary Data

To gather secondary data, the researcher reviewed available data from books magazines, booklets, pamphlets, journals, and newspaper articles, Acts of parliament; Government documents, private records, past studies carried out by other scholars and relevant studies on local physical development planning.

Data relating to land use development planning and approved subdivision was obtained from the offices of the ministry of Lands, Housing Urban Development both at the county office in Vihiga and the headquarters in Nairobi: This includes the office of the registrar of titles, survey office and the office of the county physical planner. Former municipal council offices also provided information on bye laws, building regulation, policy guidelines and strategies used.

The main sources of secondary data included the Kenya National Library, University libraries including Jomo Kenyatta Memorial Library, ADD library, IDS library, Macmillan library and The Kenya National Library Services.

1.9.2.2 Primary Data

Primary data was collected through the following methods;

1. Questionnaires

Sets of questionnaires were prepared and administered to the main resource persons. The first questionnaire was tailor made to gather information from the county government (former Vihiga municipal council). The second questionnaire was administered to the secretary of the land control board. The third questionnaire was administered to the offices of the county physical planner and the public health departments. The fourth questionnaire targeted the general households, and the final questionnaire targeted developers within the town and its environments.

2. Interviews

Face to face interviews were used. This method has the advantage of yielding the highest response rate in survey research. This helped in clarification of both ambiguous questions and answers when appropriate. They also enable the researcher to establish a rapport with potential participants hence cooperation.

Both structured and unstructured interviews were carried out, structured interviews were guided by checklist questions. In the process of gathering information relevant to the study but lacks on the checklist guide, unstructured methods of interviewing were employed. Information originating as a result of unstructured interviews was recorded in a separate note book as they were relevant in supplementing the schedule questionnaires.

3. Direct Observations

Direct observations were used in observing occurrences' that were found to be necessary and to be used in deducing or drawing conclusions. To achieve this, a check list was used in observing buildings, position of advertisement and direction signs transport routes etc.

This entailed the systematic noting and recording of events behaviors and objects in Vihiga Town. The observational record or the field notes that are detailed non-judgmental description of what was observed was kept and used in making deductions.

To achieve this, a detailed notation of behavior structured by checklists to a more holistic description of events was undertaken.

4. Photography

Photographs illustrate issues or situation the way they are. Photos speak more than a thousand words. Photography was used to collect data on the condition of the physical environment, human activity and functions of the space. In order to get the finished research to contain selected excerpts of the entire observational experience, Photography were used. Photographs were taken by the researcher to focus on aspects that the researcher found interesting, incomprehensive or important in some way. Collection of visual data that is qualitative in nature was best done through photography.

5. Maps

Concept of mapping is a general method that was used to help researcher to describe the ideas about some issue in a pictorial form. Maps involve creating graphic representations of information using spatial relationships within the graphic with an aim of creating some relationships within the data. The common practice of map drawing is the scaled drawing of geographical features.

Maps that give base information were collected. This includes maps of the physical location of the land-use activities. Subdivision maps from the preparation source to approval were collected and verified on the ground if indeed they were implemented as approval.

1.9.3 Survey Instruments

To achieve the researchers' objectives for the study, research tools such as field notebooks, pens, and pencils, Questionnaires, camera, maps were used. A total of six research assistants were employed to help in data collection and entry.

1.9.4 Study Design

The purpose of study design is to ensure that the evidence obtained enables the researcher to answer the initial research questions as unambiguously as possible. This calls of specifying the type of evidence needed to answer the research questions and accurately discuss the phenomenon. What the researcher is doing by research design is asking himself/herself, given

the research questions what type of evidence is needed to answer the questions in a convincing way? This Research was done through a case study. The intention is to have an in-depth investigation and diagnosis of local physical development planning.

This research is an exploratory study hence was guided by the research objectives. Since it is descriptive and exploratory, no hypothesis was stated. In studies, which are essentially exploratory or an area of knowledge that has very little previous research, it might not be possible to formulate any reasonable hypothesis. In such situations, the researcher may omit the hypothesis and the study is guided by the stated objectives (Mugenda and Mugenda, 1999).

This study greatly relied on government offices for information relating to development planning and development control. This included preparation of the plans and implementation. The departments within the ministry of lands (Physical Planning, Survey, and Lands), the County government planning and enforcement units (formally municipal planning department), developers and the general public were interviewed.

Records from the land registry were reviewed with the intention of establishing the land tenure systems in Vihiga Town. A pilot study was conducted before the actual study was done to be able to customize the research method.

1.9.5 Sampling Procedure

Sampling involves the selection of objectives from a population or a whole for purposes of the study. The objective is to estimate population values from values obtained from the sample. Deming, (1990) asserts that the quality of a study is better with sampling than with a census.

Several methods were used at different stages of the study. Vihiga Town was selected by purposive sampling. It was assumed that Vihiga Town was chosen to represent upcoming urban centres within rural areas in Kenya.

Vihiga Town falls within South Maragoli/Buyonga registration area. Cluster sampling then simple random sampling were adopted when choosing subjects amongst the households. This enabled each member of the population to have an equal and independent chance of being selected. This was accomplished through the use of a lottery.

1.9.6 Sampling Frame

A sampling frame includes all those within the population that qualify to be a sample. South Maragoli/Buyonga registration section which has about 300 registered property owners within the town represented the population hence the sampling frame.

A sampling frame forms a key component of a research design. Graham Kalton (1983) notes, that at minimum, it provides a means of identifying and locating the population elements.

The sampling frame includes the households to be interviewed in the study area. While relying on the land register, the researcher encountered members on the registers who were either dead or absent, in this case beneficiaries of the property were allowed to respond if available if not then a new subject was sampled using simple random sampling.

On selection of subjects for households, the town was divided into five representative zones. Each zone was to produce 12 respondents who are not landlords. This was achieved through mapping study area and subdividing into zones. Subjects within each zone were selected by simple random sampling.

1.9.7 Sample Size

In determining the sample size the researcher relied on the size of accessible population.

Mugenda and Mugenda (1999) recommend the following formula which guided on how to obtain sample size;

$$n=Z^2pq/d^2$$

Where;

n is the desired sample size (for population greater than 10,000)

Z is the standard normal deviate at the required confidence level

p is the proportion in the target population estimated to have the characteristics being measured.

$$q = 1-p$$

d is the level of statistical significance set

For this case,

$$\begin{aligned}q &= 0.2 \\d &= 0.05 \\p &= 80\% (0.8) \\Z &= 1.96\end{aligned}$$

Therefore;

$$n = \frac{1.96^2 * 0.8 * 0.2}{0.05^2}$$

$$= \mathbf{245}$$

But our estimated population is less than 10,000

Then

$$N_f = n / (1 + n/N)$$

Where

N_f is the desired sample size when the population is less than 10,000

n = the desired sample size when the population is more than 10,000

N = the estimate of the population size

So,

$$N_f = 245 / \left\{ \frac{1 + 245}{300} \right\}$$

$$= \mathbf{298}$$

Several suggestions about sample size in research have been advanced. A part from the formula above, Mugenda and Mugenda 1999 while quoting Gay (1983) suggest that, for correlational research cases in a scientific research, a sample size of 30 cases or more are required so long as it allows for a reliable data analysis and provides the desired level accuracy.

Kerlinger (2000) has a different view about the required sample size. He introduces a percentage of the population as the sample size. He states that 10% of the sample frame is adequate to allow for analysis. This applies if it provides the desired levels of accuracy in estimation of the large population and allows for reliable testing the significance of the difference between estimates.

Kerlinger (2000), ideas concurs with Mugenda and Mugenda (1999) estimation of sample size for descriptive studies where they both agree on 10% of the accessible population to be enough.

Based on the above, three figures are at hand for the researchers' samples size. They are 298 subjects from Mugenda and Mugenda formula, 30 subjects from Mugenda and Mugenda (1999) and Kerlinger (2000) and finally 30 subjects minimum from Mugenda and Mugenda (1999). Due to limitation of financial resources and time, 50 subjects were adopted as the sample size for developers. A corresponding equal number of subjects were adopted for the households. However 60 respondents each were interviewed with a view of allowing 10 for cleaning of questionnaires.

1.10 Data Analysis

The data analysis began with coding of questionnaires, then data entry into the computer, then organizing the collected data into statistical tables. Descriptive (qualitative) and statistical (quantitative) methods of data analysis were used. Data analysis calls for the systematic application of statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. Qualitative approach often included some raw data including direct quotations from participants as well as analyses of the data based on categories. Qualitative approach was used to establish the measures of central tendency and the measures of disparity.

1.11 Data Presentation

Summary data from the study was presented in form of narratives, maps and figures so as to easily observe general trends. The figures used include frequency tables, frequency distributions, histograms, bar charts, pie charts, line graphs and area charts, photographs and maps were also be used.

1.12 Study Limitations

The research needed a longer period to extensively study all the aspects of development control and enforcement. However the time limit and inadequate resources did not allow for an exhaustive study to be undertaken. Some problems were encountered in obtaining information. They include;

- a) Habitual absenteeism of some officers made the researcher undertake several trips to the study area in order to obtain the required information.

- b) The study theme was rather sensitive, in that some respondents, out of fear and suspicious were not willing to give vital information relating to development approvals and land ownership. The researcher had to rely on goodwill to gather information.
- c) Some government officers mandated with development control were reluctant to unravel important information about critical issues which relate to the study.
- d) The agencies charged with development control lack general data. It is clear that adequate data is not kept by these agencies.

Despite these constraints, residents were motivated and educated about the subject matter. The respondents were made to comprehend that the information to be obtained from them was meant for academic purposes only. This helped the researcher to obtain reliable data.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter will systematically examine the general information research studies and Theories by other researcher in the field of local physical development planning. The chapter will discuss both published and unpublished information in the particular study area. The chapter will also act as a guide to the evaluation to the local physical development planning of Vihiga and the set planning standards.

2.1 Concept of Land

Land resource has its roots back to the biblical times. In Genesis 15; 18-21 {¹⁸ On that day the Lord made a covenant with Abram and said “*To your descendants I give this land from the river of Egypt to the great river the Euphrates, ¹⁹ the land of the Kenites, Kenizzites, Kadmonites, ²⁰ Hittites, Perizzites, Rephaites, ²¹ Amorites, Canaanites, Girgashites and Jebusites (NIV)*}. Land is described in terms of borders which in Jewish tradition defines the extent of the land promised to the descendants of Abraham through his son Isaac. This passage describes land in terms of territories for various ancient groups.

To economists, land includes the surface, the soil and rocks beneath, and the space above. In an orthodox definition of land as held by economists, land is distinguished from capital and labor because as a factor of production, it exists in the natural order of things and no labor has been expended on its production (Simiyu, 2002).

The Kenyan constitution 2010 defines land to include the surface of the earth and the subsurface rock, any body of water on or under the surface; marine waters in the territorial see and exclusive economic zone, natural resources completely contained on or under the surface and the air space above the surface (GOK 2010). This definition is likely to be shared by most lawyers hence the legal definition of land.

Socially land plays an important role in the life of human being. It is the original and indestructible powers of the soil (Antony, 1982). Historically it has been a cause of much conflicts and dispute. The relationship between mankind and land has gone through several stages. During the feudalism age, land was seen as a measure of wealth, land valuation and

taxation was the paradigm then. Industrial revolution age occurred at around 1800 and at this time land was seen as a commodity to sell and buy, the paradigm then was land market. After the Second World War, the post war reconstruction age viewed land as a scarce resource and the paradigm then was land management. During the current information age, land is viewed as a community scarce resource and the paradigm now is sustainable development.

To spatial planners, land is the natural resource on the planet. It includes space on the ground, hills, seas, oceans and air. For optimum utilization of these spaces, land use planning must be undertaken.

From the above discussion it is clear that there are conflicting views about land. On one hand land is used to demarcate territorial boundary. This wide view has a political inclination angle. Land is also viewed as a property to be owned individually. This view looks at land as a private commodity to be owned, used, bought or sold for personal comfort and gain. Finally land is viewed as a shared natural resource. This shared natural resource should be conserved and cared for with due regard for its effect on society as a whole and for conditions in which it will be passed on to future generations. For that purpose land resource should be planned for sustainability and use for future generations.

2.2 Concept of Land Use

The phrase “land use” looks more self-explanatory. However different authors have defined it differently. Stamp (1962) literally defines land use as the use to which land is put by man (but in sparsely populated areas) including the natural and semi natural vegetation. Clawson (1965) views land use as man’s activities on land which are directly related to land. Huque (1982) defines land use as how land and its improvements are actually used and distributed over the territory or locally. Oluoch (2000) defines land use as the accommodation in terms of space of all man’s activities on land and the way in which the land surface is adopted to serve human needs. Land use is characterized by the arrangements; activities and inputs people undertake in a certain land cover to produce, change or maintain it (FAO/UNEP 1999).

All the above definitions point to the fact that land use is an activity by human beings on land. We can generally say that land use is the modification of natural environment into built environment such as fields, pastures and settlements.

2.2.1 Land Use Planning

Planning is futuristic; it is about forward thinking in time, it anticipates the future and prepares to receive the future by implementing policies and programs that aim at improving human lives.

Sharp (1940) saw planning as an attempt to formulate principles that should guide us to create a civilized physical background for human life whose main impetus is that of foreseeing and guiding change. Keeble (1961) defines planning as the art and science of ordering the use of land and character and siting of buildings and communication routes so as to secure maximum practical degree of economy, beauty and convenience. Ratcliffe (1981) defines planning as discipline concerned with providing right site for right people in the right place and he agrees with sharp to the extent of planning being the art of anticipating change and arbitrating between the economic, social, political and physical forces that determine the location form and effect of urban development. Land use planning is aimed at promoting safe and adequate accessibility from home to work and from work to home, to shops, to offices and to other entertainment areas. If no roads of access are provided then the neighborhoods would turn into a slum, where may be foot path would be used with no vehicular access in and out of the estates. Planning is done to secure suitable provision for transportation.

Land is a scarce resource that needs to be utilized well. Land use planning should enable the creation of the most appropriate utilization of space and the most effective arrangement of services in order to ensure the greatest economy practical. It is vital at this level to preserve the property values so as to realize their full benefits. Planning is meant to improve land and provide for the proper physical development. Resources are limited, and for that matter planning should enhance the employment of resources in the economic ways so as to achieve the greatest possible improvement of benefit. It should provide for improvement of land and its proper physical development.

Planning is meant to control the order, nature and direction of development in urban areas. It is supposed to separate incompatible land uses and encourage association of compatible land uses. It should ensure harmony between the built and natural environments. It is supposed to integrate the goals of sustainability of good governance and economic viability in land use planning activities as well as promote a sustained improvement in the living standards of the inhabitants of the neighborhood.

From the above it is clear that land use planning is a dynamic profession that works to improve the welfare of people and their communities. This is done by creating more convenient equitable, healthy, efficient and attractive locations for present and future generations. Land use planning is a framework that helps leaders to transform vision into implementation by use of space as a key resource for development and engaging stakeholders along the way.

2.2.2 Theories of Development Planning and Control

The theories of planning have evolved through three distinguishable stages: Master plan (Blue print era) of 1950's to mid-1960; Systems theory view of planning of 1960's; and planning as a continuous participation in conflict resolution.

A master planning model was concerned with plan production that gave detailed maps of a desired future end state to be achieved over a certain period of time. This came after the 1947 Town Planning Act of Britain.

The systems view of Planning was championed by the Planning Advisory Group (PAG) of 1965. The systems theory emphasized that planning must be accompanied by reports to show the rationale of decision making per stage. McLaughlin, (1973) notes that, the process should be continuously repeated as the monitoring process throws up divergences between the planners' intention and the actual state of the system. This theory is derived from the science of cybernetics. With the introduction of control mechanisms, the behavior of the system can be changed in specific ways to achieve certain objectives on the part of the controller. The system view of planning is the idea of interaction between the planning or controlling system and the system it seeks to control.

The systems view of planning was criticized due to the demand for public participation in planning. The Skeffington Report of 1968 led to a statutory requirement that, participation be formally incorporated in the planning process. This led to the need for citizens being involved in making plans for themselves.

The role of the planner should be that of a negotiator with a principal aim of promoting public interest. However this approach could be disadvantageous in that a group of wealthy or influential people could use their positions to influence decisions at the expense of the society at large.

2.2.3 Development Control Process in Kenya

In Kenya development Control process is governed by various laws and Sessional Papers including; The Urban Areas and Cities Act 2011, Land Control Act Cap 302, the Physical Planning Act Cap 286, the Constitution of Kenya 2010, the Environment Management and Coordination Act 1999, the National Land Commission Act, the Land Act 2012, the Land Registration Act 2012 and the Sessional Paper No.3 of 2009 on the National Land Policy. The application process entails submission of a development application which is attached on various prescribed forms which were previously administered by the defunct local Authorities. In Kenya Local Authorities collapsed after the 4th March 2013 General elections and currently urban development control is under the armpit of the 47 County Governments in Kenya. Under the County Government, the Sub-County Administrators' receive the application forms from the applicants or proponents with sufficient copies for circulation to various institutions for comments. After circulation and receipt of comments, a committee composed of professionals from the built environment, roads and NEMA meet to deliberate on the proposal to either approve or reject. Communication to the proponents is done by the sub-county administrators.

2.3 Objectives of Planning

Among material resources, the greatest unquestionably is the land. Study how a society uses its land and you can come to pretty reliable conclusions as to what its future will be (Schumacher, 1989).

An effective plan must comply with the standards set by the physical planning department. However, it takes more than a plan that complies with the standards to be an effective plan. A good plan should be based on a vision; be Meaningful, in terms of citizen involvement, be consistent, realistic, and financially feasible, appropriate in terms of objectives, policies, and strategies. Planning for land use, the future growth and development is an important activity for the county governments. Effective planning ensures that future development will occur where, when and how the community and the county government want. The community benefits as a result of effective planning include improved quality of life; there is a vision, clearly stated and shared by all, that describes the future of the community; economic development is encouraged and supported and there is more certainty about where development will occur, what it will be like, when it will happen, and how the costs of development will be met.

Planning is a wide exercise that aims at promoting accessibility from one point to another as human beings carry on their daily duties. It also aims at enhancing employment of resources as economically as possible so as to achieve the greatest possible benefit with the limited resources available.

Planning should ensure separation of incompatible land uses from each other and association of compatible or mutually related uses. It should create the most appropriate utilization of space and the most effective arrangement of services so as to achieve the greatest economy practicable in time and moment, the preservation of property values and assets and the full realization of benefits.

Local physical development plans should provide a basis for development control. They should form a basis of approval of applications for development permission. They should promote sustainable utilization of available natural resources within an environmentally and culturally accepted framework for guiding urban development and minimize environmental degradation.

Stakeholder participation is currently a constitutional requirement in matters that affect the community; hence local physical development plans should provide a basis for participation of all stakeholders in planning. They should provide a basis for conservation and promotion of local economy especially agriculture. Finally they should stem the run-away urban sprawl in urban centres.

2.4 Urbanization

2.4.1 Historical Context of Planning in the Western World

The origin of urbanization dates back to 4000BC in the Fertile Crescent, which was an area stretching from the Nile valley to alluvial plain of rivers Tigris and Euphrates. The Sumerians of Assyria are the pioneers of urban planning. This started by development of city kingdoms in the warrior-kings that were both fortress and market places for agricultural products of the neighborhood. City population then ranged between 3,000-5,000 people. One of the earliest of these cities was Babylon which is about 88km south of the modern day Baghdad in Iraq. Babylon was originally built like other Sumerian cities of the Bronze Age, it reached its legendary greatness when Nebuchadnezzar II had rebuilt during the sixth century BC (Catanese and Snyder 1988).

Egypt being the pioneers of civilization was also city oriented, although her cities were small. An exception was the cities where pyramids were built, for example Kahun had more than 20,000 people living in the city at the times of pyramids construction.

The Greek during the 5th century established a moral and political form of citizenship called democracy under Pericles. Meetings were held at the temple of Anthena. This democratic assembly area replaced the ruler's assembly as the city center in urban design. Growth of the democracy led to houses and facilities of the community to become the most important elements of the city plan. As need for urban order grew Hippodamus who was a trained architect developed the first theoretical basis for physical planning in cities. He proposed the need for rectangular street system. Residential blocks were designed to enable the houses to be serviced as well as ensure accessibility to public buildings and spaces. He developed the concept of the *agora*. A city's commercial activities were conducted in the *agora*, which was different from the political assembly area of the people but close to it. Hippodamus is believed to have planned Piraeus (The port city of Athens) and the city of Rhodes.

During the Roman Empire, Rome replaced Athens as the centre of western world (thus 27BC-AD 324). The Romans appreciated the importance of transportation and emerged as the pioneer regional planners in transportation. They planned and built roads throughout the sprawling empire.

Modern world provides for four bases upon which cities are built. They include the physical, economic, political and social base. The physical base calls for regular street patterns where housing fills the remaining spaces. The planner creates designs that fulfill the wishes of artistic satisfaction. They work to find solutions to city problems, constrained by political, economic, social and physical conditions. The discovery of gun powder and the invention of the steam engine in 1769 signaled the beginning of industrial revolution. This meant that human labor could be supplemented by machines. The early impacts of industrial revolution included congestion, safety hazards and air and water pollution.

Transportation was important to industrialization. Mechanization led to centralization of factories hence workers homes were now distant from the places of work. All these called for

organization of land use activities hence planning during the industrial revolution. The first Public Health Act was enacted in the 1800's and dealt with standards for housing.

Ebenezer Howard with the concept of the garden city solidified the concept of new towns as an urban planning movement. There were four main components of Howard's invention;

- a) All the land about 1000 acres would be owned simply in the public trust.
- b) Population and development would be staged until a maximum of 30,000 people were housed.
- c) A greenbelt of 5000 acres of agricultural land would surround the city.
- d) There would be a mixture of land uses to ensure social and economic self-sufficiency (Catanese et al, 1988).

As Howard contributed heavily to the theory of planning, Patrick Geddes made his major contribution by theorizing that physical planning could only improve the living conditions of urban inhabitants if it is integrated with social and economic planning in a context of environmental concern. Without Geddes' contribution, the evolution of urban planning could have been delayed.

2.4.2 Urbanization Trends in Kenya

Kenya's urbanization has proceeded at a tremendous pace over the past four decades and projections indicate that it is set to grow even further in the next few years. It was expected to urbanize at an average growth rate of 3.9 per cent per year for the period 2005-2010.

"Africa is the fastest urbanizing continent in the world. In 1980, only 28 percent of the African population lived in cities. Today it has risen to about 37 percent. The annual urban growth rate in Africa is 4.87 percent, twice that of Latin America and Asia. Cities and towns in Africa are also growing at twice the 2.5 percent growth rate of the rural population in Africa. In terms of numbers, currently about 300 million Africans live in urban settlements. This figure is expected to reach about 500 million by 2015. UN-HABITAT estimates that in the next 25 years, 400 million people will be added to the African urban population, putting tremendous pressure on cities and towns" (Anna Kajumulo Tibaijuka, 2006). This was a statement of Dr. Anna Kajumulo Tibaijuka Under-Secretary-General, Executive Director United Nations Human Settlements Program UN-HABITAT to Committee on Senate Foreign Relations, May 4, 2006.

In 1962 it was estimated that only one Kenyan out of every 12 lived in urban centres. By the year 1999, the proportion of the urban population had increased to 34.5 per cent which is close to 10 million people. This implies that one out of every three Kenyans lived in urban areas. By the year 2015, the level of urbanization will have reached 44.5% with an estimated 16.5 million people living in urban areas and eventually percentage is set to reach 54% by 2030 with about 23.6 million people living in urban areas (Kenya Vision 2030).

Urbanization has been accelerated by natural population growth and rural-urban migration. The poor performance of agriculture and rural development is making small trading centres to urbanize faster due to reliance on urban based activities for their livelihoods leading to demands in more urban basic and infrastructure services. The growth is evident in the major urban centres in Kenya including Kisumu, Kakamega, Eldoret, and Bungoma among others. The above unprecedented urban growth has contributed to a myriad of problems faced in our urban centres today, and which can only be addressed through a coherent sustainable urban development based on sound development control system.

2.5 The Planning Process

There is no generalized or universal planning model that can be adopted by everybody. A good model should provide a check list of all the main activities or operations which should characterize a planning process from the time that some “problem” is identified as a study initiated through to implementation and review of the adopted course of action. The table below shows the plan preparation process adopted from the department of physical planning ministry of lands, housing and urban development.

Table 1: Plan Preparation Process in Kenya

No	Activity	Purpose	Actors
1	Notice of intention to plang93	Information to local authority of intention to prepare plan	✓ Physical planners
2	Reconnaissance survey	Appreciation of planning area and its environs	✓ Physical planners ✓ Surveyors
3	Base map preparation	Depicting of the existing situation	✓ Physical planners
4	1 st stakeholders meeting	<ul style="list-style-type: none"> ✓ Sensitization of stakeholders ✓ Identify problems and planning issues; challenges and Opportunities ✓ Consensus building ✓ Engagement of stakeholders ✓ Launching of the planning process 	<ul style="list-style-type: none"> ✓ Physical planners ✓ Local authorities ✓ Business community ✓ Service providers
5	Data collection	✓ Collection of information on the dynamics of the area	✓ Physical planners
6	Data analysis	✓ Correlation of information to have in depth understanding of the dynamics	✓ Physical planners
7	Draft plan preparation	Formulate draft policies, strategies and guidelines	✓ Physical planner
8	2 nd stakeholders meeting	✓ Discuss draft policies with the stakeholders in the order to obtain their views on the same.	<ul style="list-style-type: none"> ✓ Physical planner ✓ Local authorities ✓ Business community ✓ Service providers.
9	Initial amendments.	Input stakeholders' recommendations to the policies and strategies.	✓ Physical planner
10	Circulation and publication.	To obtain view from the wider stakeholders.	✓ Physical planner
11	Final amendments	To input relevant views from the wider stakeholders.	✓ Physical planner
12	Approval and gazettelement plan.	To legitimize the plan.	Minister for lands
13	Implementation-M&E.	Actualize the proposals.	<ul style="list-style-type: none"> ✓ Local authorities. ✓ Public/private investors. ✓ Service providers.
14	Plan review.	To revise the plan in response to the dynamics of the area.	Physical planner and other stakeholders.

Source: Physical Planning Department, 2014.

2.6 Land Tenure

Land tenure is important in rural development interventions that use a right based approach to programming. Such programming should ensure that causes which prevent people from enjoying their rights are eliminated or reduced. Land tenure is important part of social political and economic structures. It is multi-dimensional, bringing into play social, technical, economic, institutional, legal and political aspects that are often ignored but not always be taken into account.

The relationships between land tenure and land use should not just be restricted to enhancing agricultural production. Since land tenure determines access to land, it is a critical variable in the management of the land resource.

Land tenure in common law is a name given particularly to the legal regime in which land is owned by an individual who is said to “hold” the land. It is the relationship among individual with respect to land. This relationship can be legal or customary.

Land tenure provides the legal and normative framework within which all agricultural as well as other economic activities are conducted. Tenure insecurity whether customary or statutory tenure regimes undermine the effectiveness of these activities, When tenure rights are certain, they provide incentives to use land in a sustainable manner or invest in resource conservation whether for the individual or group of individuals (Ogolla and Mugabe, 1996)

Tenures adopted must aim at providing security of tenure to persons holding the land. It is then imperative that the government pursues policies and land tenures that will lead to sustainable land use and development.

The tenures adopted should aim at satisfying various policy objectives namely.

- a) Efficiency inland use by providing a smooth functioning land market and permits maximum productivity of land resources for all types of uses. The system should also be responsive to various changes in demand
- b) Aim at equity by ensuring that the tenure system provides reasonable access to all groups especially those of low income or vulnerable groups.

- c) System should be comparable with other policy instruments dealing with economic development and must not contradict existing legislation
- d) Continuity such that it avoids abrupt breaks in the existing political and cultural set up.
(Waiganjo and ngugi,2001)

2.6.0 Land Tenure Systems in Kenya

Interests in land in Kenya falls under two categories namely; customary tenure and statutory tenure. The customary tenure is bound through traditional rules while the statutory tenure is secured through the national law and various acts of parliament.

2.6.1 Customary Land Tenure

This tenure system refers to unwritten land ownership practices by given communities through customary laws. This type of tenure system exhibits a number of similar characteristics.

Individuals who are members of the social unit of production have guaranteed rights of access to land. Families claim to property rights by virtue of their affiliation to the group. The right of control is vested in the political authority of the community or unit. Control is for the purpose of guaranteeing access to the resources and is redistributive both spatially and intergenerational. Its administrative component entails the power to allocate land and resources within the group, regulate their use and defend them against outsiders (Ogola and Mugabe, 1996).

Rights analogous to private property accrue to individuals out of their investment to labour in harnessing, utilizing and maintaining the resources. Thus the present cultivator of some piece of land has the greatest rights to it. These rights transcend mere usufruct and encompass transmission in some communities transfer (Elias, 1956)

Resources that do not require extensive investment of labor are controlled and managed by the relevant political community. Development control and regulatory mechanisms that are imposed by the political units are aimed at ensuring sustainable use. They include exclusion of outsiders, seasonal variations in land use and social pressure.

2.6.2 Statutory Tenures

i. Freehold Tenure

This tenure confers the greatest interest in land. It is sometimes referred to as fee simple, absolute right of ownership or possession of land in perpetuity. A freehold title generally has no restriction as to the use and occupation but in practice there are conditional freeholds, which restrict the use for say agricultural or ranching purposes only.

ii. Leasehold Tenure

Leasehold is an interest in land for a definite term of years and may be granted by a freeholder usually subject to the payment of a fee or rent and is subject also to certain conditions which must be observed. The conditions could be relating to developments and usage.

Leases are also granted by the government for government land, the local authorities for trust land and by individuals or organizations owning freehold land. The maximum term of government leases granted in Kenya is 999 years for agricultural land (for Kenyan citizens) and 99 years for urban plots. There are few cases of 33 years leases granted by government in respect of urban trust lands. The local authorities have granted leases for 50 and 30 years as appropriate (GOK 1996).

iii. Public land tenure

This is where land is owned by the Government for her own purpose and which includes unutilized or un-alienated government land reserved for future use by the Government itself or may be available to the general public for various uses. The land is administered under The Lands Act no. of 2012. Categories of government land include forest reserves, other government reserves, alienated and un-alienated government land, national parks, towns and other urban centres and open water bodies.

The Government Lands Act (now repealed) did not have any notion of trusteeship by government of the land to her people. Indeed the government at times acts as a private owner and allocates parcels to those in its favor.

2.7 Factors Determining the Pattern of Land Use

Patterns of land use in urban centres are a reflection of competition of sites between various users operating through the forces of demand and supply (Goodall et al, 1983).

Goodall explains that an increase in the income of a prospective user of a site could lead that user to pay a higher price for the site.

i) Accessibility

It refers to the distance between places, the time taken and the cost implication of the travel. Goodall (1983) notes that with a given transport system, movement will be concentrated along particular lines hence differentiating between sites in terms of accessibility advantages. Sites close to main roads will have relative advantages over sites allocated away from the main transport routes.

ii) Institutional Factors

Institutional factors include government regulations that govern land use .These are zoning regulations, building regulations and planning regulations.

iii) Complementarity

Complementarity may bring the clustering of unlike uses. Individuals find advantages from living near to others with similar interest, to schools for their children, to worship place or homes of relatives. Where the site cannot be subdivided, to provide a particular user with enough space, then the user may combine his demand with other users. Thus where a shop occupies the ground floor and offices the 1st floor, one finds complimentary use of the same site.

iv) Physical Factors

Differences in land use patterns reflect physical features such as the presence or absence water bodies, varying slopes and elevations and orientation to prevailing winds (Goodall et al, 1983). The pattern of transport routes is the major determinants of the positions of greater or lesser accessibility in an urban area. Geographical features such as mountains may also influence the directions in which an urban area develops or expands. Geological conditions such as conditions of sub soils influence the pattern of land use and the intensity of use.

v) Economic Factors.

Land is immovable hence fixed in supply. A high demand in one area cannot be satisfied by high supply in other region. Pattern of land use in an urban area is a reflection of competition for site between various uses operating through the forces of demand and supply.

vi) Social Factors

Some neighborhoods are regarded as safe in terms of rate of crime and land use planning. People would prefer to live in prestigious neighborhoods that enjoy relative advantage in terms of security, transportation and controlled developments.

2.8 Development Control Instruments in Kenya

a) Zoning

Zoning is a method by which the development plan segregates parcels of land or areas of town and ascribes to the broad classification for appropriate use (Ratcliffe, 1981)

It is based on the principle of land use separation. Some land uses are incompatible with others and should not be allowed in the same area. The zoning laws divide land into districts. Within each district; the laws regulate the purpose for which buildings may be constructed, the height and bulk of buildings, the coverage in terms of area and the number of persons that they can accommodate. Zoning schedules consists of a map showing the various categories into which the town as divided and the text which lists the types of users allowed in each district. Zoning map shows the various land uses, height, site coverage and density. By use of zoning a community living in a given neighborhood is capable of protecting existing land uses from encroachment by undesirable uses at the same time ensure that future proposals will be compatible with one another. Zoning regulations are also used to control the type of structures allowed to prevent excessive noise and pollution and to provide sufficient privacy and open space (Oluoch 2000). It can also control development so that each parcel of land is adequately serviced by streets, sanitary and storm sewers, schools, parks and utilities.

b) Building Code

Building codes are Local Government (Adoptive By-Laws) that are designed to ensure public health and safety. They establish minimum acceptable materials and construction standards for structural loads and stress, windows and ventilations, size and location of rooms, fire protection, exits, electrical installations, plumbing heating and lighting.

It is a requirement that inspections be made during development process by the relevant authorities to ensure minimum safety standards are incorporated in the construction projects.

Before any construction work is undertaken, any person who intends to put up the building is required to submit a written application of the proposals to the local authority. Plans, sections and details should be drawn and materials which are durable to the recommended. If the Local Authority is satisfied with the proposal on the basis of existing laws and by-laws then approval is accorded.

Building by laws part III section 32 states that “no person shall use or permit to be used or cause to be used in the erection of a building, any material which is not of suitable nature or quality for the purpose for which it is used”. Noncompliance with this regulation makes one to be guilty of an offence. The local authority may elect to carry out any test the materials used by a developer for construction of any building. No second hand material should be used on work to which the by-laws refer.

Once a developer has completed ,building he/she is required to notify the council in writing to enable a final inspection to be done and a certificate of completion to be issued. Without this certificate then the building is not legally occupied.

c) Subdivision Planning

A subdivision plan is essentially a land use plan showing the divisions of land into two or more subplots indicating the building sites, streets, roads and open spaces if any for purpose of sale or lease. It is also a plan which involves the division of a site containing existing buildings by creating two or more separate registered properties.

The objective of controlling subdivisions includes ensuring that the resultant sub plots are accessible, proposed population density is in accordance with services available, there is planned and coordinated development and the proposed uses are compatible with surrounding.

d) Licensing Power

Local authorities use licenses for revenue collection. The Licenses’ can as well be used to control activities within the jurisdiction of the local authority. It is a requirement under the Physical Planning Act (cap 286) laws of Kenya that before any development is undertaken, development permission should be sought from the local authority. Licenses’ and permits may

be issued for a variety of purposes permanently registering the business, facilitate inspection, prohibit proliferation and raise revenue.

e) Legislation

Land use planning forms part of the police powers of the state. For effective development control, there should be a legal framework within which enforcement activities are undertaken (Olima 1993). Note that the essence of the legislation and instruments is to provide for the control and regulation of land use planning and development. In Kenya there are several statutes that deal with land use planning, administration and development control.

2.9 Problems of Implementation of Urban Development Plan

Urban development planning and management in developing countries is the responsibilities of County governments. Implementation of urban development plans faces serious hindrances.

They range from political to economic, financial to institutional and from physical to socio-cultural problems. Some of the challenges are discussed below.

a) Ineffective Policies Guiding Urban Development Plans Implementation

Policies for implementing local physical development plans have been characterized by failures.

Careful assessment and review of some of these policies reveals a variety of troubling evidence that many urban land policies promulgated by government are ineffective and, perhaps more alarming, they sometime cause some significant harmful effects on social welfare and economic productivity.

b) Unsuitable Urban Physical Planning Methodology

The physical planning of most urban areas is being carried out through the preparation of urban master and structure plans to guide development of various land uses. The comprehensive planning approach adopted by the majority of planners in developing countries, based on the traditional paradigm of “survey-analysis-evaluation-plan-implement” is based on technocratic, time-consuming, and rigid procedures.

c) Excessive Delays in Approving Urban Physical Development Plans

Proposed development plans and proposals require approval by planning and county governments before their implementation according to planning regulations. They sometimes take unnecessary long period of time thus delaying developments. In most cases, developers have had to go ahead with their developments with no regard for submitted plans and many of such developments have health and environmental consequences on the life of the society.

d) Weak Institutional Structure of Urban Physical Development Agencies

There has been considerable debate and criticism leveled at the structure and management of planning agencies and local government system in developing countries. Like many other institutions, most of the agencies and local governments were set up as an extension of the colonial administration. It is observed that the actual practice of the system of local government in some countries has departed from its conceptual framework as laid down in the relevant local government edicts and laws. Institutional coordination problems arise between the planning agency and local government or state planning authorities and state ministry in charge of physical planning particularly in control of land in urban areas.

e) Urban Planning Regulations Places Much Emphasis on Control Rather than on Guidance of Urban Development

Planning legislations in form of land use plans, zoning, subdivision regulations, building codes, and other public policies shape and guide development. These regulations are normally adopted to help protect the urban and natural environment, gear infrastructure investments with development, and maintain and enhance property values. They are never meant to restrict or decelerate development but rather to direct and enhance it. Most planning regulations and standards in developing countries have been considered to be too static and inflexible like some existing development control regulations, the building and zoning regulations. The various acts and statutes for regulating urban development are too rigid and outdated and not conforming to the countries' current social, economic and political circumstances.

f) Urban Political Instability and Interference in Implementing Urban Physical Development Plans Proposal

Political interference was very common in the local authorities in Kenya. This interference in the urban development control system limited the local authorities' ability to fully regulate and control development. Powerful government officials have been known to enforce physical development plan approvals that do not meet the stipulated requirements. High demand for land parcel in cities has also led some authorities to overlook the standards required for various uses and abuse of development control especially open spaces. There has been lack of adequate political support for the pursuits of the objectives and aims of town planning and development control in most developing countries.

g) Weak Legal Machinery for Urban Physical Plan Implementation

Although some developers tend to comply with planning regulations, there are some violators. This is because the legal bodies are not strong to enforce pollution regulations on them or prosecute them whenever they violate environmental laws. Fines levied on such offenders are, most of the time, low and affordable; hence that do not deter them, when compared to gains they make from inefficient mode of production. Some planning agencies and local authorities often do not ensure widespread public participation in physical planning law making in much of the developing countries.

h) Inadequate Awareness of Planning Activities and Public Participation

The extent to which people are aware of the existence of planning activities and regulations is important because it partly determines the extent to which people will comply with these regulations. Lack of public participation and awareness of urban development plans and planning legislations lowers the chance of successful implementation of the plan and the degree of compliance with the required regulations.

2.10. The General Problems of Administering Development Control Functions

Adzi-Tay (2012) while quoting Ogundele et al (2010), observed that there is the need to departmentalize, equip, and adequately fund the town planning unit to enable it cope with the challenges of development control as this would lead to constant monitoring of development on a

daily basis. It is therefore important that after the preparation of the scheme, physical planners monitor and report on the implementation of the scheme to ensure that expectations conform to assumptions.

Finally, political influence from the corridors of power frustrates the efforts of agencies involved in controlling development. Politicians often try to win the heart of the public in order to win elections. Hence a particular property may be wrongly sited and must be demolished but due to political influence such unapproved developments are made to stay.

The importance of development control in physical planning cannot be over-emphasized. In fact, its benefits are profound and can only be comprehended and appreciated if fully adopted in the course of planning and implementation of physical development plans at rural or urban settings.

2.11 Policy Framework

The role of policy is to indicate the desired development goals of implementing institution as well as the means of achieving those goals. Policies are essentially selected options to be used as instruments for achieving intended goals and objectives. They thus only provide general and directive principles in a wider scope not necessarily consisting of an elaborated action plan. This section analyses international, national and regional policy affecting Vihiga County with a bias to land use planning and development control.

2.11.1 The Kenya Vision 2030

Kenya vision 2030 is the country's blueprint for development covering the period of 2008 to 2030. Its aim is to make Kenya a newly industrialized, "middle income country" providing high quality life for all its citizens by the year 2030. The vision 2030 aims at making Kenya a globally competitive and prosperous nation with a high quality of life for all its citizens. Developed through an all-inclusive and participatory stakeholder consultative process, the Vision is based on three "pillars": the *economic*, the *social* and the *political*. This Vision's adoption comes after the successful implementation of the Economic Recovery Strategy for Wealth and Employment Creation (ERS), responsible for the country's GDP growth from a low of 0.6% and gradual rise to 6.1% in 2006.

The Kenya Vision 2030 is to be implemented in successive five-year Medium-Term Plans, with the first such plan covering the period 2008–2012. At an appropriate stage, another five-year

plan be produced covering the period 2012 to 2017, and so on till 2030. As the country makes progress to middle-income status through these development plans, it is expected to have met its Millennium Development Goals (MDGs) whose deadline is 2015. Some of the goals have already been met. The Vision 2030 spells out action that will be taken to achieve the rest.

The policy encompasses all the development that take place in the national scale as well as the sectorial ones. Development planning and development control of Vihiga Town is in line with the visions goals that require that developments in space should be beneficial to a perceptible number of residents living therein and conserving the natural environment as much as possible to enhance sustainability in development.

2.11.2 The National Land Policy (Session Paper No. 5 of 2009)

The land policy was basically formulated out of the need to enhance efficient utilization of space for integrated and sustainable development. It is concerned with issues incidental to land in Kenya. It addresses land administration and management, accessibility to land, land use planning, restitution of historical injustices over land, environmental degradation issues, conflicts over land ownership and use, unplanned proliferation of informal settlements and slums and outdated legal and institutional frameworks.

Development control in Vihiga Town should be carried out in line with The National Land Policy requirements to avoid conflicts on the use of land for development.

2.11.3 The National Urban Development Policy

The policy was prepared to define strategies and mechanisms to enable the urban sector to respond effectively to the challenges of urban development in order to meet the need of urban areas. This was done through harnessing the incremental gains achieved by the initiatives of the local government reforms and translated the same into policy. The broad objectives of the NUDP are directed at facilitating and enhancing the role and contributions of urban centres in national socio-economic development. The Policy is envisaged to strengthen the governance, development planning, urban investments, and delivery of infrastructure services and also substantially contribute towards poverty reduction, economic growth and faster realization of Kenya's Vision 2030.

2.11.4 The Millennium Development Goals

These are broad goals that aim at ensuring that the general well-being of the people is achieved in any development strategy. The goals include; eradicating extreme poverty and hunger, achieving universal primary education to reduce illiteracy levels, promoting gender equality and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and developing a global partnership for development.

According to a UN Report on Millennium Development Goal that targeted the significant improvement of livelihoods of millions of slum dwellers by the year 2020, the global community has fallen short of these targets as witnessed by increased numbers and spread of informal settlements. Therefore, the goals require that any development in space should be in line with the public interest with an aim of fostering collective comfort, convenience and prosperity.

2.11.5 The Agriculture Policy

This policy aims at protecting productive agricultural lands from encroachment by other land uses particularly at the periphery of the urban centers. It discourages unnecessary urban sprawl and environmental deterioration through effective development controls. It emphasizes that farm activities are key to national development as far as the food security issues are concerned.

As Vihiga town continues to develop, there is likelihood to encroach into the surrounding agricultural and natural environment. Therefore, the policy must come into force to guide in the identification of the appropriate direction of development with the main objective of protecting the key natural resources in the agricultural hinterland.

2.12 Legal Framework

Development control is greatly anchored in Kenyan laws. They include;

2.12.1 The Constitution of Kenya, 2010

The Kenya constitution, 2010 is the supreme law of this republic. It binds all persons and all state organs at both levels of government. The constitution sets the relationships between the national government and the county governments. It lays emphasis on equitable distribution of resources, right to clean environment, regulations and laws on land use, encourages and protects participation of the minorities, marginalized groups and the old in all aspects of development

amongst other freedoms contained in the bill of rights.

Section 66 provides for the regulation of land use and property, while also establishing a National Land Commission (Section 67) as the main body that shall monitor and have oversight responsibilities over land use planning throughout the state.

The Constitution also provides for the legislative authority of County Assemblies under Article 185. Under the constitution of Kenya 2010, development planning is provided for at two distinct levels of government. Schedule four of the constitution specifies the planning functions to both the National Government on the one hand, and to the county governments on the other.

County planning is assigned the following functions: County Planning and Development, Statistics, Land Survey and Mapping, Boundaries and fencing, Housing, Electricity and gas reticulation, Energy regulation, County Transport, County Agriculture, County Health Services and Trade Development and regulation.

2.12.2 Urban Areas and Cities Act, 2011

The objects and purposes of this Act are to establish a legislative framework for— classification of areas as urban areas or cities; governance and management of urban areas and cities; participation by the residents in the governance of urban areas and cities.

2.12.3 County Governments Act, 2012

The Act gives effect to Chapter Eleven of the Constitution, which is to provide for county governments' powers, functions and responsibilities to deliver services. Part XI of the County Government Act, 2012 is devoted to county planning.

Section 102 provides that the principles of planning and development facilitation in a county, they shall, integrate national values in all processes and concepts; protect the right to self-fulfillment within the county communities and with responsibility to future generations;

Section 104, gives the obligation to County assemblies to plan. It provides that; A county government shall plan for the county and no public funds shall be appropriated outside a planning framework developed by the county executive committee and approved by the county

assembly.

The county planning framework shall integrate economic, physical, social, environmental and spatial planning. The county government shall designate county departments, cities and urban areas, sub-counties and Wards as planning authorities of the county.

To promote public participation, non-state actors shall be incorporated in the planning processes by all authorities. County plans shall be binding on all sub-county units for developmental activities within a County. Section 105 (1) provides that a county planning unit shall be responsible for; coordinating integrated development planning within the county; ensuring integrated planning within the county.

The designated planning authority in the county is required to appropriately organize for the effective implementation of the planning function within the county- Section 105(2).

Section 107 (1) provides for guidance, harmonization and facilitation of development within each county. It requires there be the following plans: county integrated development plan; county sectoral plans; county spatial plan; and cities and urban areas plans as provided for under the Urban Areas and Cities Act.

2.12.4 Physical Planning Act, Cap 286

This Act makes provision for the preparation of a physical development plan. The Act empowers the Director of Physical Planning under *Section 24 (1)* to prepare physical development in reference to any government trust or private lands within any area of jurisdiction of a city, municipal, town or urban council, or with reference to any trading or market centre a local physical development plan. The Physical Planning Act is a much more comprehensive statute that provides for physical planning and development control. The Physical Planning Act was enacted in 1996 repealing two earlier statutes the Town Planning Act (Planning in Urban areas) and the Land Planning Act (Planning in rural areas). The Physical Planning Act provides for planning in both urban and rural areas. The Act establishes committees known as physical planning liaison committees at National, provincial and district levels. The function of these committees is to act as an appeal mechanism from the decisions of the Director of Physical Planning.

It is concerned with Land use planning and development control matters to ensure orderly and sustainable development. The Act mandates local authorities to control development and implement development plans prepared. The Act however needs harmonization with other existing laws and new structure of government for it to be effective in carrying out its role.

2.12.5 The National Land Commission Act, 2012

This is an act of Parliament that provide for the functions, powers, qualifications of, and appointment procedure for members of the National Land Commission established by Article 67 of the Constitution and for connected purposes. The Act establishes The National Land Commission as the administrative structure for management of land in Kenya. Its functions are stated as the management and administration of public, private and community land. The Commission will also be mandated to have an oversight authority on all planning issues.

2.12.6 The Land Registration Act, 2012

This is an Act of Parliament that revises, consolidates and rationalizes the registration of titles to land; to give effect to the principles and objects of devolved government in land registration and for connected purposes. This Act repeals; The Indian Transfer of Property Act 1882, The Government Lands Act, (Cap 280), The Registration of Titles Act, (Cap 281), The Land Titles Act, (Cap 282) and The Registered Land Act (Cap 300).

2.12.7 The Land Act, 2012

This is an Act of Parliament that gives effect to Article 68 of the constitution i.e to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land based resources, and for connected purposes. This Act repeals, The Way leaves Act, Cap 292 and The Land Acquisition Act, Cap 295.

2.12.8 Environment Management and Coordination Act (1999)

This is an Act of Parliament providing for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith. It aims at promoting a safe, clean and healthy environment. *Section 4* provides for the establishment of Environmental Conflict Management Authority, while *Section 7* provides for

the establishment of National Environmental Management Authority. These institutions are responsible for the execution of the requirements stipulated in this Act, in relation to policies relating to the environment.

Section 58 of this Act requires that every development project likely to have impacts on the environment to undergo an environmental impact assessment before commencement of any works. According to the Act's second schedule, preparation of local physical development plans fall under the projects required to undergo environmental impacts assessment.

Section 44 provides for protection of hilltops, hillsides and mountain areas and forests. *Section 45* as well, provides for protection of the environment and significant areas with any area of natural beauty or species of indigenous wildlife or the preservation of biodiversity as part of environmentally sensitive areas.

2.12.9 Public Health Act Cap 242

This Act of parliament makes provision for security and maintaining health. This Act empowers local authorities to establish office of the Medical Officer of Health or Health Inspector from whom they may make necessary inquiries and inspection regarding to any matter incidental to public health in development activities.

With regard to community facilities, *Section 32 (1)* empowers local authorities to provide hospitals and places for reception of the sick to their residents. Part IX, contains provision regarding sanitation and housing. *Section 115* of the Act states that no person shall cause nuisance or cause to exist on any land or premises any condition liable to be injurious or dangerous to human health. *Section 116* requires that Local Authorities take all lawful, necessary and reasonably practicable measures to maintain their jurisdiction clean and sanitary to prevent occurrence of nuisance or condition liable to be injurious or dangerous to human health. Such nuisance or conditions are defined under *section 118* as waste pipes, sewers, drainers or refuse pits in such state, situated or constructed as in the opinion of the medical officer of health to be offensive or injurious to health. Any noxious matter or waste water flowing or discharged from any premises into the public street or into the gutter or side channel or watercourse, irrigation channel, or bed not approved for discharge is also deemed as nuisance. Other nuisances are

accumulation of materials or refuse which in the opinion of the medical officer of health is likely to harbour rats or other vermin. *Section 124 (a)* empowers local authorities to make by-laws as regarding development of building and sanitation. The Act also empowers the local authorities to demolish remove or alter buildings unfit for human habitation. The Act also contains provisions on discharges of pollutants into water sources. On responsibility of the Local Authorities Part XI, section 129, of the Act states in part “It shall be the duty of every local authority to take all lawful, necessary and reasonably practicable measures for preventing any pollution dangerous to health of any supply of water which the public within its district has a right to use and does use for drinking or domestic purposes.

Part XII, Section 136, states that all collections of water, sewage, rubbish, refuse and other fluids which permit or facilitate the breeding or multiplication of pests shall be deemed nuisances under this Act. This part seeks to guard against the breeding of mosquito which is important as they cause malaria.

2.12.10 Building Code of 1968

This is a document based on British building standards introduced in Kenya to control building construction. The Building Code, 1968 deals with controls in housing quality, building materials and planning standards. The by-laws rigidly prescribe planning and design standards with respect to minimum plot sizes, maximum coverage, and minimum space around buildings.

2.12.11 Physical Planning Handbook

The Physical Planning Handbook (2008) provides guidelines for the preparation and implementation of physical development plans. It is meant for use by physical planners, land administrators, local authorities and other relevant personnel and institutions responsible for guiding and controlling the use and development of land in Kenya.

The handbook is largely as a reference in the preparation of local and regional physical development plans; guidance of the use and development of land; and administration procedures involved thereto. This is due to Kenya’s dynamic environment, diverse physical and socio-economic conditions and political changes.

2.12.12. Land Control Act, cap 302

This is an Act of Parliament that provides for controlling transactions in agricultural land. The act defines agricultural land as land that is not within a municipality or a town; or an area which was, on or at any time after the 1st July, 1952, a town under the Towns Ordinance (now repealed); or an area which was, on or at any time after the 1st July, 1952, a trading centre under the Trading Centres Ordinance (now repealed); or a market; land in the Nairobi Area or in any municipality, town or urban centre that is declared by the Minister, by notice in the Gazette, to be agricultural land.

The act provides for establishment of land control boards. Part III section 6 itemizes the transactions affecting agricultural land, whose dealings fall under the control of the land control board. Land Control Act regulates development, use and subdivision of agricultural land, it was designed to ensure that agricultural land is used and developed in such a way that good husbandry is not compromised. Consequently the process required that the regulatory institution known as the Land Control Board must be satisfied that the user of the land or the prospective user is capable of putting the land to productive agricultural use. For instance the Board may ask for what purposes the land is being purchased and whether it is being put to good use, secondly the board must ensure that land is not subdivided into sizes which are not capable of being put into agricultural use.

2.13 Major Urban Land Uses

In Kenya urban land uses are classified into various categories. Each category requires special planning conditions.

The classification includes the following land uses; residential, industrial, educational, recreational, public purpose, commercial, public utilities, transportation land use, deferred and urban agriculture land uses.

0. Residential Land Use

A residential neighborhood is subdivision of a town whose main function is residential and has a well-defined boundary consisting mainly of physical features such as major roads, rivers or other natural man made features. Residential land use takes up most of the land in urban areas .This is made up of areas where people live.

Residential areas are designed to create a habitable environment with the necessary amenities. There are several factors to consider when planning for a residential neighborhood. These factors include; level of services available, availability of land, social economic status, prevailing land tenure and dependent on the availability of sewer services

Residential areas are made up of organized estates and neighborhood. Residential areas are categorized according to development densities. Each density has land size requirements.

The density in residential development may be defined by population size, plot coverage and number of dwelling units.

1. Industrial Land Use

Industry is an entity or organization in which the production, manufacturing, assembly, storage, distribution and market of goods as services is done for the consumption by the public and other users. Industrial land use is devoted to manufacture, storage and distribution of goods and services. This category of land use is classified as light industrial, medium and heavy industrial land uses. Light industrial land use caters for types of industries that are compatible with residential areas. Factors used to determine the categories include type of technology used, products produced and work force.

When planning for industrial land use there is need to consider, the Location, Site requirement, Space needs and the land Layout.

Goodall (1983) notes that zoning alone does not determine the location of an industry but an industry will locate in a site where profits are maximized and that such a location decision is the outcome of many factors such as accessibility to raw materials, components sources of power, markets and labour, which may be pulling in different direction.

2. Educational Land Use

This includes land for both public and private educational institutions. Provisions of learning facilities and their land requirements depend on the age of pupils and their numbers. Pre-school facilities include day care centres, kindergartens and nursery schools. Facilities to be provided include playing fields, class rooms and open spaces.

3. Recreational Land Use.

These include open spaces other than those attached to educational or research institutions. Recreational areas could be public or private. Recreation brings a relaxation of the body and mind. There are social economic factors that suggest a real need for a generous provision of green spaces within urban environments. They include new urban population, low earnings, population structure and limitations on public expenditure. Recreational facilities in the residential neighborhood include parks, social halls, community centres, Buffer zones playing areas Libraries.

4. Public Purpose Land Use

This include land set aside for public institutions such as health centers, administration offices, law courts, police stations, prisons, fire stations ,town halls, religious institutions, libraries and post offices. These facilities need to be centrally placed accessible and should have adequate parking space.

5. Commercial Land Use

This land use category consists of town centres and local centres in which retail and wholesale shops, offices, banks and hotel are located. Commercial land use refers to land that is used for commercial purposes. In this category profit motive is paramount. Parking facilities should be provided and should be related to the level of commercial activities created. Planning for kiosks and hawking needs to be considered as a special feature. They should preferably be confined to markets and bus stops.

Commercial activities are located towards positions of greatest accessibility since such locations facilitate their transactions (Goodall 1983).They should be central compact and should have adequate parking spaces.

6. Public Utility

Public utilities are those essential services or facilities that support human life. They include water supply kiosks, sewage and storm water drainage system, Garbage /refuse disposal systems, mortuaries, cemeteries, and electricity and Telecommunication networks.

The requirements for public utilities include; appropriate way leaves and plot sizes for water, sewerage and other infrastructure systems. There is need appropriate wind directions for refuse

disposal, cemeteries, sewerage and septic ponds. Where possible, buffer zones should be used to separate the public utilities from incompatible land uses. They should be provided alongside adequate parking space. Recommended power line way leaves are 10m-60m for 11kv to 132kv respectively.

7. Transportation Land Use

Transportation is the process of moving goods and services from one point to another using various modes and means. The modes of transport include road, air, water and railway. Transportation has an influence on the development of urban centres. Most urban centres develop along transportation routes (Goodall 1983)

In residential neighborhoods the most common transportation land use is for the road networks, petrol service stations, matatu terminals and car parking spaces. The transportation system maximizes accessibility for the essential movements of linked activities as they consider safety, comfort and amenity as well as cost.

8. Deferred

This refers to land that has not been fully divided for a particular present use but reserved for future use. This land use is often zoned by prefix 8.

9. Urban Agriculture

This is the agricultural practices within urban areas. It includes crop cultivation, poultry keeping, horticulture etc. It is mostly done on small scale, very intensive, primarily for domestic consumption although surplus can be sold to supplement household income and it is practiced in or near residential arrears.

2.14 Effects of Land Use Planning on Urban Development

This can be looked at as either land use control measure or development control measure.

2.14.1 Land Use Planning as a Land Use Control Measure

Land use planning is based upon a classification of land use, which seeks to associate the compatible and separate the incompatible land uses. Zoning as an instrument of land use control is the most frequently used instrument in regulating the use of land, thereby bringing out the land use patterns (Oluoch 2000).

Land use control describes any legislative Restriction that controls how a parcel of land may be used. Its purpose is to ensure that there is enough land for all urban activities and they should be placed in the right location at the right time in order to avoid land use conflicts.

Land use planning has a considerable influence on urban development. It molds the land use pattern by determining location and space requirement for various users.

2.14.2 Land use Planning as a Development Control Measure

Land use planning is concerned with the location of urban land uses. It is also concerned with the intensity and density of development. Measures used include density specification, intensity of land use and physical development and building high specification.

a) Density of Development

Density of development may be defined by population size, plot coverage and the number of dwelling units. The level of density is based on services available and the recommended zoning. The Physical Planning Act Cap 286 defines density as the maximum amount of development permitted or maximum number of persons permitted to reside, as the case may be, on any area of land. Densities for residential development are the number of dwellings per hectare thus; low density, medium density and high density. Density can also be expressed in forms of use house per hectare (housing density), habitable rooms per hectare (room density) and person per hectare (population density).

b) Intensity of Land Use and Physical Development

Intensity refers to the capacity the land can hold. Land use planning recommends the intensity of land use, and as a development control measure the intensity is meant to ensure that the designed capacity is not exceeded. The guidelines used include;

i) Plot sizes or areas

The purpose of fixing plot sizes is to prevent overcrowding, ensure adequate light and ventilation and facilitates easy movement of people, vehicles, goods and services. The minimum plot size should generally be determined by the user type of waste disposal, availability of water and the level of building technology applied.

ii) Plot ratio

This is the factor by which the area of the plot is multiplied to determine the maximum plinth area of a building permitted on the plot. It is the ratio of gross permitted constructed area to the gross area of the plot of land.

$$\text{Plot ratio} = \frac{\text{Total floor area}}{\text{Plot area}}$$

iii) Plot coverage

This refers to portion of horizontal area of the site of the building permitted to be built by existing legislation. The essence of fixing plot coverage is to ensure a healthy environment and allows for expansion and improvement of infrastructural facilities and social amenities. It is also defined as percentage of the gross area of the plot of land which may be by the building (Planning and Building Regulations 2009)

iv) Building lines (setbacks)

Building line is the distance between the edge of a building and the centre line of a road fronting the building. The principle value of a building line is to either achieve a visual effect or reserve a certain access of area of a ground. The building lines may not necessarily be uniform, but could be flexible to produce a spatial coherence and variegated character. Building by-laws part II section 23(1) gives the council authority to prescribe a building line for any street or part of the streets. Sub section (2) declares non-compliance with the by-law a criminal offence. A plot setback refers to the distance between the edge of a building and the boundary of the next plot facing it.

v) Balconies and Canopies over streets.

It is a requirement that every canopy within 600m of the outer edge of footpath or protruding over a road should have a clear space not less than 5.5m beneath all over and every canopy created a foot path shall have clear space or not less than 3.3m beneath.

vi) Building Height Specification

Building height specification is meant to control the proportionality of the height. It affects the actual structure of the building.

2.15 Players in Land Use Planning Process

Planning should be continuous, flexible, able to foresee, influence change and capable of taking long term perspective of current problems. It starts from plan preparation, implementation, monitoring and evaluation. The players involved include;

a) County Physical Planner.

Physical planners are personnel at the department of Physical Planning, trained in urban and regional planning. They play an important role in preparation of physical development plans. The physical planning Act empowers the Director of physical planning to prepare regional and local physical development plans with reference to government land, trusts and private lands.

The main role of the County Physical Planner therefore is plan preparation and plan review. However, the Planner should be incorporated in decision making and plan implementation for the effectiveness of land use planning.

The Act should be amended to allow the County Physical Planner to enforce the implementation of the land use plans. Currently the power to implement is delegated to the former local authorities that may not understand fully the setbacks and the challenges involved in the planning process.

b) The National Lands Commission.

The National Lands Commission is constitutional body set up to manage public land on behalf of the county and national governments. Before the enactment of the Physical Planning Act cap 286, the commissioner of lands was in charge of approving the physical development plans. Currently regional and physical development plans are approved by the Minister for the time being, in charge of physical planning. However with the devolved system of government, this becomes the duty of appointees of the governor.

When plans are approved, National Lands Commission then starts the process of documentation and issuance of title documents.

c) Developers.

Developers are private individuals, partnerships and private companies. Developers are mainly capitalists whose objective is to invest and maximize profits.

They apply for development permission from local authority before commencement of any work. They form part of the stakeholders during consultation in preparation of land use plans. The other developers include government ministries, public bodies, and non-governmental organization.

d) County Governments.

Former Local Authorities were the main actors in both plan preparation and implementation. Before the physical planner could start planning work, he/she was supposed to send a notice of intent to plan to the local authority. It was the responsibility of the local authorities to mobilize stakeholders alongside with the required resources. However with the new system of government, this becomes the preserve of the County Government.

After preparation of the plan, the County Government has the responsibility to implement the plan. The County Government considers all development applications and approves all land planning matters if satisfied.

The roles of local authorities in land use planning as they were in the previous system of government include provision of land use plans for the overall urban center, which are guidance to orderly and balance development in the area, provision of various infrastructural services and facilities suited in various land use used as they are earmarked for development in order to enforce positively the development of an urban area, approval of building plans to ensure that they comply with the land uses plans and setting of the land use standards.

All the above roles should be performed by the various departments within county governments.

2.16 Development Control in the City of Melbourne in Australia

The Melbourne planning scheme controls land use and development within the city of Melbourne. This scheme contains planning policies, zones and overlays and other provisions that affect how land can be used and developed. They are made up of maps and the ordinance. The

ordinances are the policies and written clauses and maps depict where the zones and overlays apply within the planning scheme area.

Planning scheme in Melbourne (which is equivalent to local physical development plan in Kenya) determines if a planning permit is required to change the use of land or to construct a building or make alterations to land and specifies relevant assessment criteria when development permission is required.

All buildings and works in the municipality must be approved by the council through the planning permit application process. Every property in Melbourne has a set of planning controls which specify when a planning permit is required. It is the duty of the developer to find out which controls affect his property before embarking on the planning permit assessment process since different controls apply to different properties.

The city of Melbourne issues many different permits for building and construction activities. They include;

- a) Permits for construction, alteration or demolition of a building (i.e. building permits for new works, building permits for alteration, demolition permits, mandatory building inspections and occupancy permits).

The above permits are provided by Melbourne certification group (which is a team of qualified building surveying professionals established by the city of Melbourne).

- b) Permits to occupy space on the road or foot path (bins and skips, cranes, travel towers, scissor-lift cherry pickers, plant /sheds /tower crane bases and hoisting zone
- c) Permits for safety and amenity (hoardings, gantries, scaffolding, and protective overhead awning. Construction zone permits, working outside permitted hours. Permit to open part of a road i.e. Excavations and vehicular crossing
- d) Others (sitting approval for temporary structure, change of use and temporary occupancy permits.

In the Melbourne city, building set backs are traditionally imposed on residential buildings to enhance open spaces.

2.17 Development Control in Lagos State - Nigeria

Metropolitan Lagos consists of 16 local government areas and it was made of almost 88% of the Lagos state population of about 15.5 million inhabitants by 2011. It covers about 300km² and it is located in the south western part of Nigeria.

The Lagos state is of great social and economic importance in terms of industrial activities, commercial, transport, banking and housing opportunities. Due to the above, activities tend to compete for the use of best sites for their location.

Development control in Lagos state dates back to the 1946 ordinance, which established local planning authorities and made development control their main activity. In 1992 a planning law was passed which made provisions for the establishment of Development Control Department (DCD) by the commission.

Until 2010 the legal framework operational was contained in the Lagos state official gazette of 2005. However, The Lagos state Official Gazette of 2005 was repealed and replaced by the 2010 Lagos State Urban and Regional Planning Development (URPD) law. This law made provisions for creation of an authority made up of the following;

- a) The Lagos State Physical Planning and Development Authority.
- b) The Lagos Urban Renewal Authority
- c) Any other agency as may be established.

It is the Lagos state ministry of physical planning and development authority that is responsible for Processing and issuance of all building development permit and ensure compliance, establishing district town planning offices and establishing local planning offices at local government levels with the approval of the governor through the commissioner.

To ensure public participation, a draft development plan is made available for public inspection for a period of 28 days and it's advertised in at least two dailies. The public is allowed to raise objections and or comment on the plan.

The statutory functions of the department of development control include the processing and issuance of development permit in the state; monitoring compliance with approved and operative physical development plans various approvals orders and regulations, establishment of District

Town Planning Offices and Local Planning Offices, operational control and supervision of District Town Planning Offices and Local Planning Offices, preparation and periodic review of district plans, town plans, local plans, development guide and plan for excised villages and publication in the official Lagos state government gazette of building plans, approved rejected and or withdrawn.

All the above functions are performed by five technical departments in the authority. Although there is adequate legal and institutional capability in the Lagos metropolis, the state still face problems of development control. This is due to neglect, poor management, inadequate and absence of urban development policy or absence of mechanisms for the enforcement. In Lagos state, development control measures have not been effective as a tool for land use control and management due to poor implementation and technical knowledge and corruption amongst other evils.

2.18 Development Control in Switzerland

Switzerland has a devolved system of government. The national parliament consists of two chambers, a national government and a federal president. Under the two chambers, there are 26 sovereign Cantons that comprise of about 2902 autonomous Communes (equivalent to municipalities). All planning powers rest with cantons and communes. The general planning system follows the structure of political system (Federal, Canton and Commune).

The Swiss System of Land Use Planning is performed on four levels: National level, Cantonal level, Regional level and Communal level. On all levels master plans (outline plan / structure plan) determine the strategic planning policy. On the regional level the master plan is substantiated with details on land usage. Planning on a regional level encompasses the same items as planning on the Cantonal level. However, the planning is more detailed. All planning on a regional level is subject to the plans on the national and cantonal levels. On the local level, land use planning in a narrower sense is performed.

The Federal provides the general principles and guidance on planning. The Cantons are charged with the detailing the principles and guidance provided by the Federal. The Commune is charged with provision of development control functions and production of local guide plans.

Local planning statutes define how plans are formulated and each Commune has its own procedure of plan formulation. The approval process also follows the political structure. Communes' plans are approved by the Cantons and they cannot overturn decisions contained in the Cantons' plan. They are required only to detail the plans further within the principles provided. It is on the basis of this detailing that 'use plans' are developed.

The 1979 law on land use planning provided a basis for the introduction of coordinated planning between the Federal, Cantonal and Communal levels. Previous attempts made to impose some sort of planning coordination from above were strongly resisted by the locals.

Development control in Switzerland is highly decentralized and operates on the principle of zoning, in that the approval of development application needs a locally recommended planning permission.

2.19 Lessons Learned

Initially there was a general feeling that the planning system in Switzerland is rather stuck in the rut. It was viewed as an end in itself and an end state plan producing machine. Present society needs are that, a planning system to be as flexible as possible and less static. Introduction of a more dynamic and flexible approach based on regular reviewing and monitoring to adopt a more rapid and less predictive change could do this.

Just like Switzerland, Melbourne city in Australia has a set of planning controls which specify when a planning permit is required. Planning schemes (the equivalent of Local Physical Development Plans in Kenya) determines if a planning permit is needed to change the use of land or construct a building or make change to land.

Lagos Nigeria has a well-structured department of development control with specific functions aimed at attaining efficiency as a tool of land use control and management.

2.20 Conceptual Framework

Previous studies undertaken in the area of development planning and peri-urban growth have concentrated on provision of services. Planning and development control should aim at achieving the elements of public interest. All planning activities operate in a political frame work that is

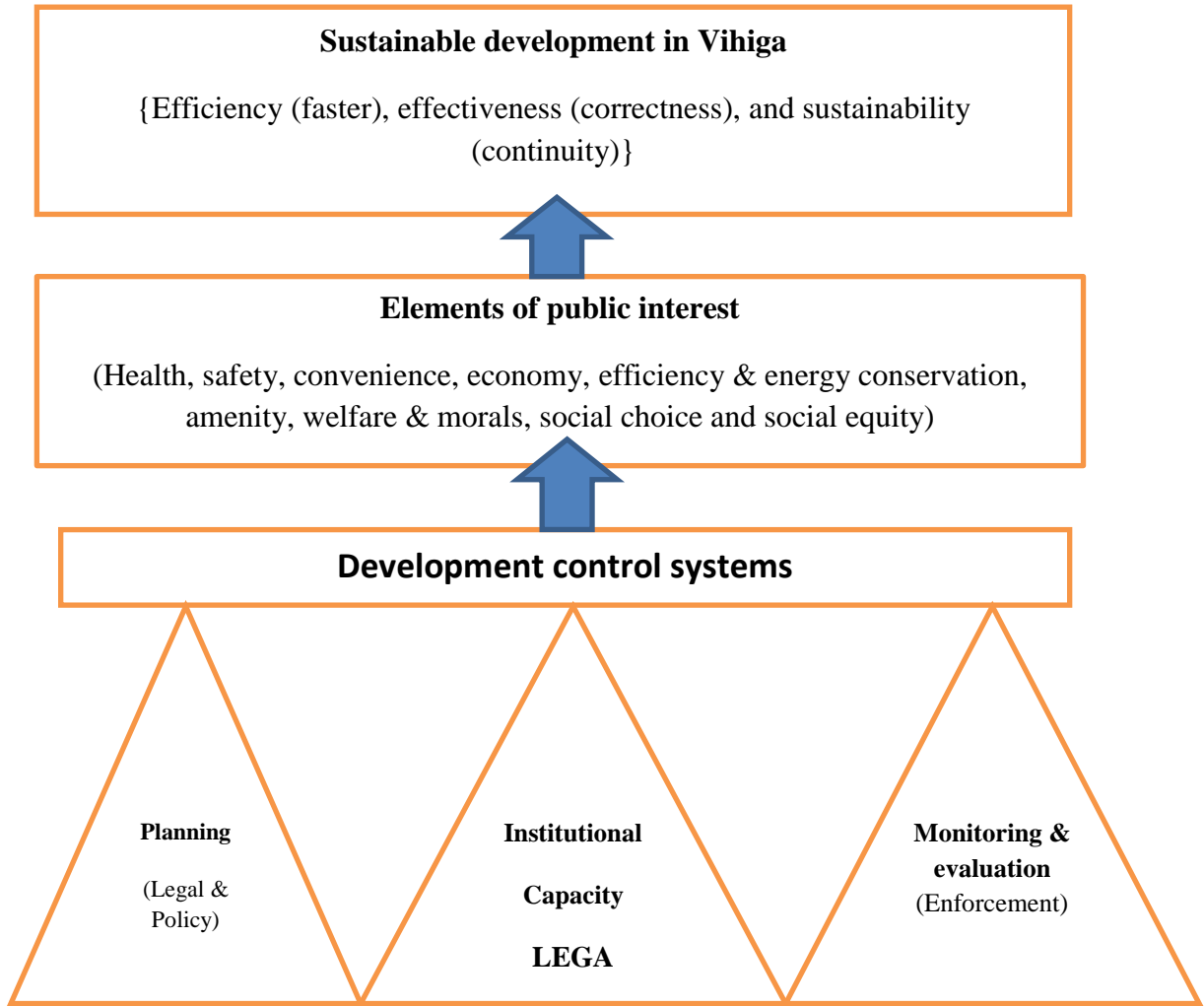
dictated by regulations. This could be through elected leaders or legislation. These actions or instruments are what we call tools of development controls.

The three core components that form a development control system are institutional capacity, planning (through legal and policy process) and finally monitoring and evaluation (which are achieved through enforcement).

Institutions are charged with capacity to implement development control policy framework within which powers of development control are exercised. Planning forms the legal and policy guidelines and is executed through plans and projects. Monitoring and evaluation aims at bridging the gap of what ought to be done and what ought not to be done. It also describes the site and building inspections; enforcement notices and 'stop the work' notices.

Once the three core instruments are put in a framework, they form the development control system which is guided and supported by adequate institutional framework. The core purpose of a development control system is to achieve the elements of public interest. Once the elements of public interest are realized in planning and development control, then the end result is efficiency, effectiveness and sustainability in land use planning and development control.

Figure 2.1 Conceptual framework



Source: Author 2014

2.21 Summary

The literature review has given an account of the tools used in development control in Kenya and other parts of the world. It has highlighted on the standards used in land use planning and development control in urban areas. It also highlighted on the legal framework applicable in Kenya. It is on account of this conceptual framework that the study goes on to assess the development controls and enforcement in Vihiga Town.

CHAPTER THREE

THE STUDY AREA

3.0 Introduction

This chapter provides background information of the study area. It describes the study area in terms of historical background, Geographical characteristics population and economical characteristics. It outlines the research methodology used.

3.1 Physical Attributes of the Area

3.1.0 Location

Vihiga County is located in the western parts of Kenya. It borders Kisumu, Siaya, Kakamega and Nandi Counties. The total area covered of the county is approximated to be 530.9 km², making it one of the smallest counties in the country. Geographically Vihiga town is found within the lake basin region. It lies between 34⁰ 30' and 35⁰ 0' east of the prime meridian and latitudes 0⁰ 15' north. The equator passes south of the town hence influences the climate.

Map 1: Vihiga in the National Context

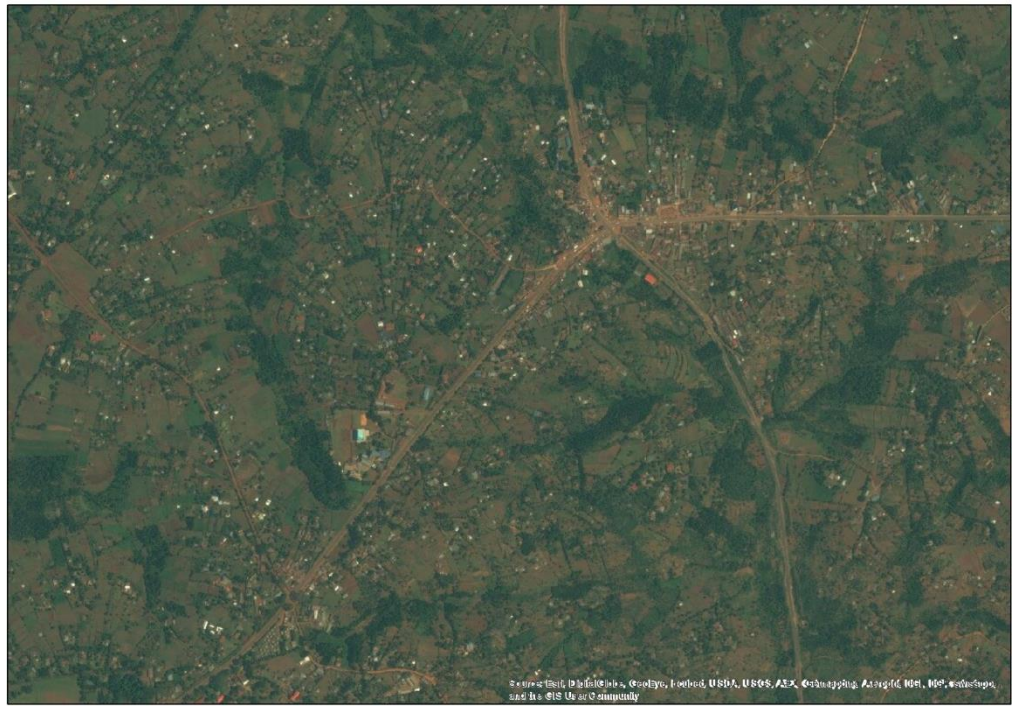


Source: Survey of Kenya 2014

Map 2. Vihiga Town in the Local Context



Plate 3.1: Satellite Image of Vihiga Town



Source: Google earth, 2014

3.1.2 Topography

Vihiga town lies on the eastern fringes of the rift valley's lake basin. The altitude is between 1300m to 1500m above sea level. The town slopes gently from the west to the east.

3.1.3 Drainage

The main rivers surrounding Vihiga town include Ezalwa, Yala, Lunyerere, Ehedwe, Warunyi, and Lidumbu. Two unnamed permanent streams cross the fringes of the town. All the streams drain in the rivers above which end up draining in Lake Victoria.

3.1.4 Geology

The major soil found in the town is Dystric acrisols, which is deep well drained and slightly acidic covered with humic top soils from both volcanic and basement complex with yellowish red loams derived from sediments and basements.

3.1.5 Climate

The town experiences modified equatorial type of climate with high rainfall of 1800mm to 2000mm with 66% reliability and a mean annual humidity of 64.0. The rains are well distributed and bimodal in nature, showing two distinct seasons i.e. long and short rains. The long rainy season is experienced during the month of April, May and June while the short rainy season comes in September, October and November. The temperature ranges between 14⁰ C and 32⁰ C with mean temperature of 23⁰ C.

3.2 Population Size

Vihiga County has a population of 554,622 according to the National population and Housing Census of 2009. It has a population density of 1044 persons per square kilometre. The population was expected to grow to 572,577 in 2012 and projected to grow to 603,856 persons in 2017. The urban population was 86,750 persons in 2009 and it is projected to grow to 106,908 persons in 2017. Vihiga Town had a population of 23,370 persons (11,363male and 12,007 female) in 2009 and this population is projected to grow to 29,604 persons in 2017.

Vihiga Town continues to attract more population due to high birthrate and rural-urban migration. The urban population swells due to the attraction to the urban centres in search for

employment and better urban services. This continuous growth in population calls for proper land use planning and improved social amenities.

3.3 Infrastructure and Access

The road network in Vihiga County is fairly in good condition. However feeder roads and back streets in Vihiga Town require opening up and routine maintenance. The town is served with tarmac roads and all weather roads i.e. gravel surface. The town is not served by a railway line. Vihiga County has no airstrip and relies on Kisumu and Kakamega counties for flight services.

3.4 Post and Telecommunication

Vihiga Town is served with Vihiga Post Office and private couriers within Majengo terminus. All the major mobile phone providers have network coverage within the town.

3.5 Educational Institutions

Vihiga Town has several learning institution including St. Joseph Teachers College, Vihiga high school, Ikumba secondary school and several primary schools including Vihiga, Ikumba, Navuhi, Mudasa Academy amongst others. Keveye Youth Polytechnic is amongst the oldest tertiary institutions within the town. Pre-school learning centres are evident in all primary schools

3.6 Energy Access

The town is connected to the national electricity grid. About 10.8 percent urban households have access to electricity.

3.7 Conclusion

From the above discussion on the background of Vihiga Town, it is established that Vihiga is a town with great potential socially and economically. Both the social and economic potential of the town greatly influences the planning approaches so as to achieve optimum development. The town is located at the intersection joining main urban centres in Siaya, Nandi Kisumu, and Kakamega counties. This implies that the rate of urban development is likely to be very high hence measures should be put in place to ensure sustainable urban growth.

CHAPTER FOUR

ANALYSIS OF STUDY FINDING

4.0 Introduction

This chapter presents the findings from the assessment of development control in Vihiga Town. The earlier chapters have attempted to give a background to the study and the area of study. This chapter seeks to evaluate the study objectives against the research findings.

This research was an endeavor to assess the extent of development control in upcoming towns in rural areas in Kenya. The findings form a basis of the analysis and presentations, which in turn form a basis on which conclusions and recommendations were made.

Simple descriptive statistics have been used to display, describe and present the research findings through classification of the raw data into meaningful, purposeful and usable categories. They include tables, charts and photographs.

4.1 Land Use Planning

Local physical development plan can be prepared on public land, community land or on private land. The plan may be long term or short term physical development plan or for a renewal or redevelopment. Physical development plans have a general purpose of guiding and co-ordinating development of infrastructural facilities and services for an area such as a town and for the specific control of the use and development of land or for the provision of any land the town for public purposes.

The plans are to be prepared by the Director of Physical Planning as per the provision of section 5(a-d) of the physical planning Act cap 286. However provisions of section 5(2) hold which allow for delegation of the duties.

A local physical development plan may consist of a map and descriptions necessary to indicate the manner in which land may be put to use in an area. The researcher established that;

The local physical development plan for Vihiga Town was prepared on 16-12-1969 (fig 4.1). The same was approved on 14th November 1970. There is no evidence of citizen participation in the preparation process. The plan has not been revised since then. However specific planning areas have been addressed through preparation of part development plans.

In total three parts development plans have been prepared and approved since August 1975 to June 1991.

The first one proposing sites for co-operative development office, staff houses and access road was prepared on 20th August 1975 and approved on 30th December 1975 (PDP NO35/75/1). The second part development plan was proposing a site for ministry of education's school equipment store (plan no. W357/77/1) prepared on 26th September 1977 and approved on 25th July 1978.

Final part development plan No.357/91/1 prepared on 3rd June 1991 and proposing a site for low density government pool housing was approved on 25th March 1992. The above PDPs lack evidence of citizen participation. The proposals were circulated to the relevant government departments for comments. However no adverse comments were received. Since then no traces of land use planning in terms of preparation of the development plans were established.

The 1969 plan deviates greatly from current development status of Vihiga Town. The plan exhibited two nodes, one being a commercial node and the other was a service oriented node where government offices were located. To date, the area earmarked for government offices has been retained and developed for that purpose.

The 1969 plan did not envisage the current liberalization in the education sector. The reform in the education sector has led to emergence of colleges and private schools. By then this was a service preserved for the public sector, with the entry of the private sector providers, competition for land to build these institutions or rent is evident. This requires a planner's input which could be addressed by part development plans if not within comprehensive planning. This has not been the case, land set aside or planned for a stadium (public sport ground) has now been taken up by Mudasa Academy, one of the major private schools in the area (plate 4.1, and zone 3₁ on fig 4.1)

In 1969, the numbers of public commercial vehicles are likely to have been few. The most common mode of transport was the use of bicycles. With the growth and expansion of the town the number of public service vehicles has increased. However the town lacks a matatu terminus or a bus station. This has led Matatu crew to turn and collect passengers by the road side (Plate 4.2b). The planned terminus has been taken up by commercial buildings.

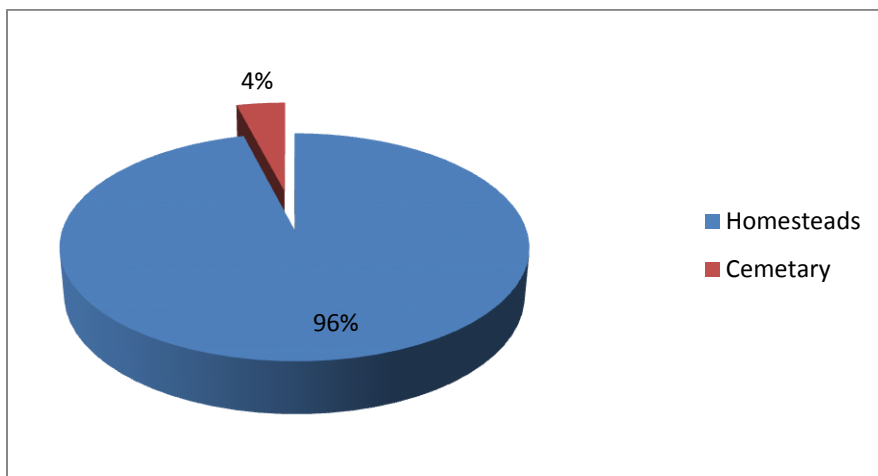
The town completely lacks a parking space for vehicles within the town; shoppers within town are forced to park their cars by the road side (plate 4.3). All parking spaces are taken up by commercial developments.

Land set aside for an open space on the 1969 plan has in formerly changed to a closed market (plate 4.4). This market remains disused due to lack of parking space. Due to the unsuitability of the location the vendors are moving and selling their wares next to the main road (Plate 4.5). The research revealed that there is no holding ground for garbage. It also revealed that the town and the County as a whole lack a dump site. This has led to heaping of garbage by the roadside (plate 4.6)

Directional signs, bill boards and sign boards are an integral part of any business community. However when erected in areas not designated for them, they ends up reducing visibility for both motorists and pedestrians. At the road junction to Vihiga police station stands many sign boards at the middle of the road (plate 4.7).

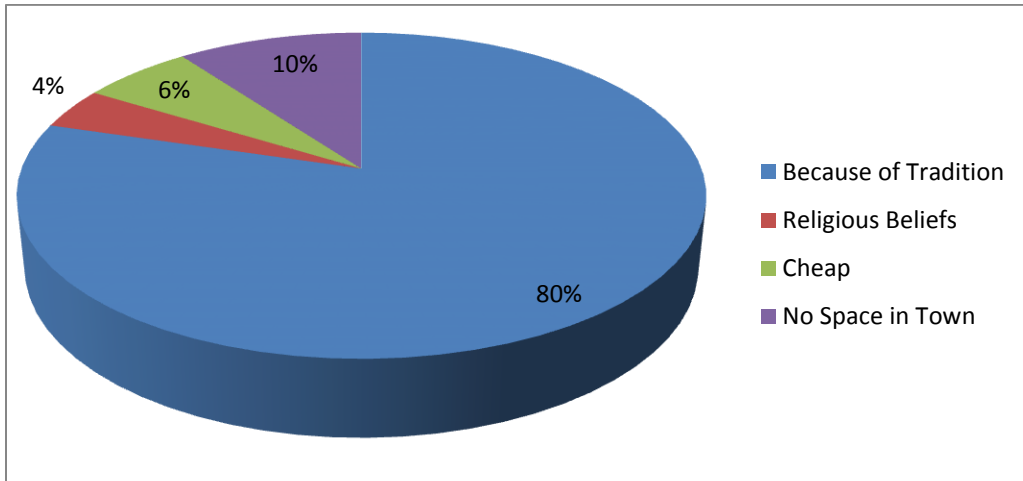
Respondents within the study area showed a great attachment and respect to the dead .This could be associated greatly with cultural beliefs, and asked which was their preferred place of burial 94% of the respondents amongst the households prefer their homestead as burial place while only 4% use cemeteries.

Chart 4.1: Burial place



Source; Author 2014

Chart 4.2: Reasons for Choice of Place of Burial

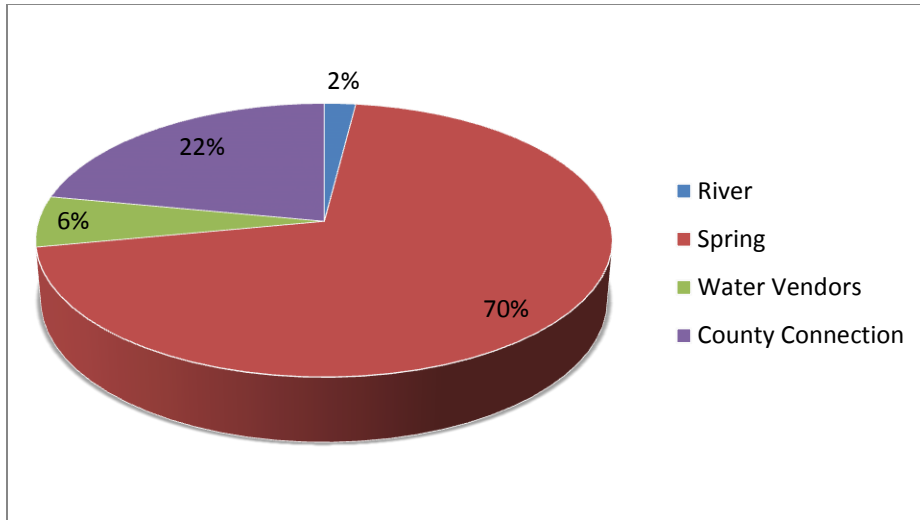


Source; Author 2014

Asked further why their preference, 80% associated this to cultural and traditional beliefs, 4% attributed this to religious belief, 6% sited cost as a reason for preference while 10% sited lack of space as a reason for their preference. However it was established by the researcher, that Vihiga town lacks a cemetery. This is by extension the whole County. Manyatta Muslim cemetery is a private land that was donated to the mosque for burial of Muslims. The 1969 plan provided for one cemetery labeled as zone 4₉. The proposal fell on private land which is currently being developed for commercial purposes and partly being used for agriculture (plate 4.8).

Amongst the household, 70% get their water from springs, about 22% source for their water through county water connection network, while 6% find water from vendors and the remaining 2% source for water from the river.

Chart 4.3: Source of Water

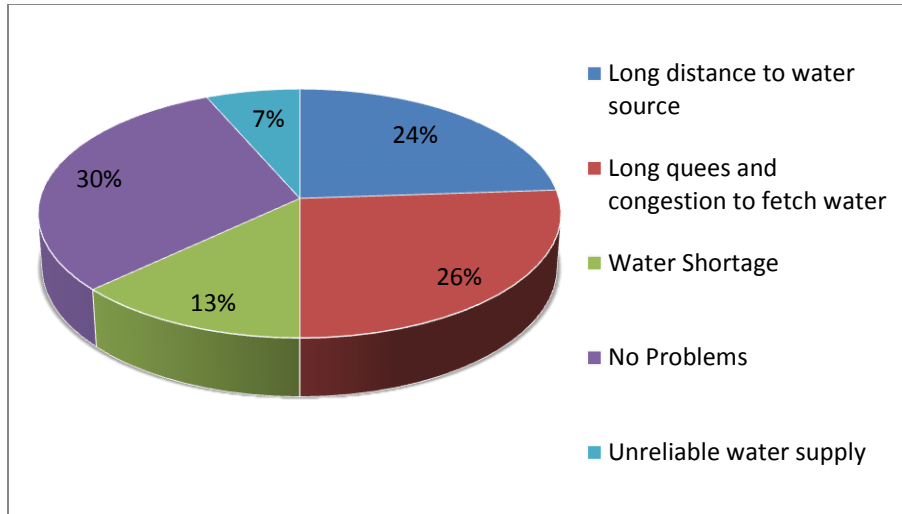


Source; Author, 2014

Vihiga town is served by Vihiga water supply. The water reservoir provided for in the 1969 plan exists but lacks capacity to supply the whole town. Most of the consumers of the water from the plant are public institutions and a few individual near the main connection lines.

Long queues and congestion when fetching water is one of the major problems facing access to water sources ,with about 26% of the respondents acknowledging that they are affected by the problem 24% of the respondents amongst the household face long distances to water sources,13% face water shortage from county mains and 7% have unreliable water supply. However 30% of the respondents amongst households don't have any problems related to fetching water.

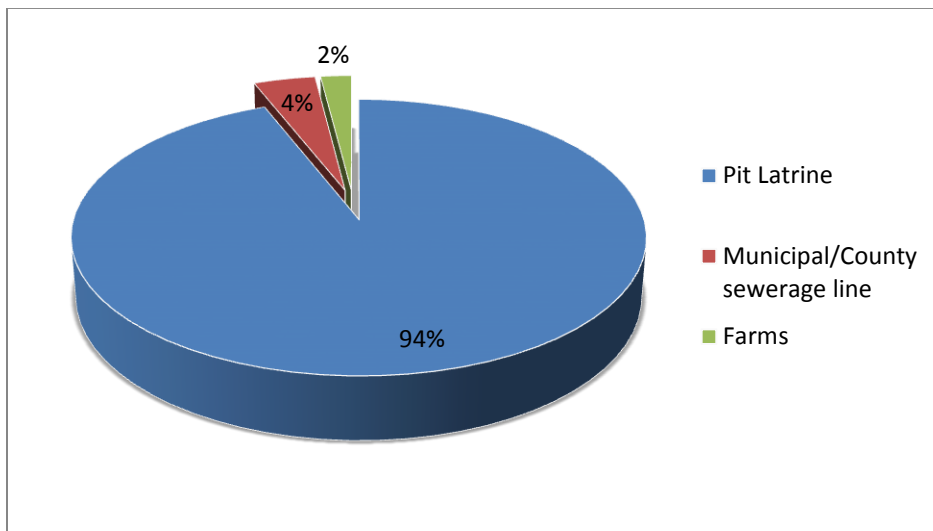
Chart 4.4: Water Problems



Source; Author, 2014

Amongst the household respondents, 94% use pit latrine to dispose waste water, 4% use county sewerage line, while the remaining 2% dispose in open farms.

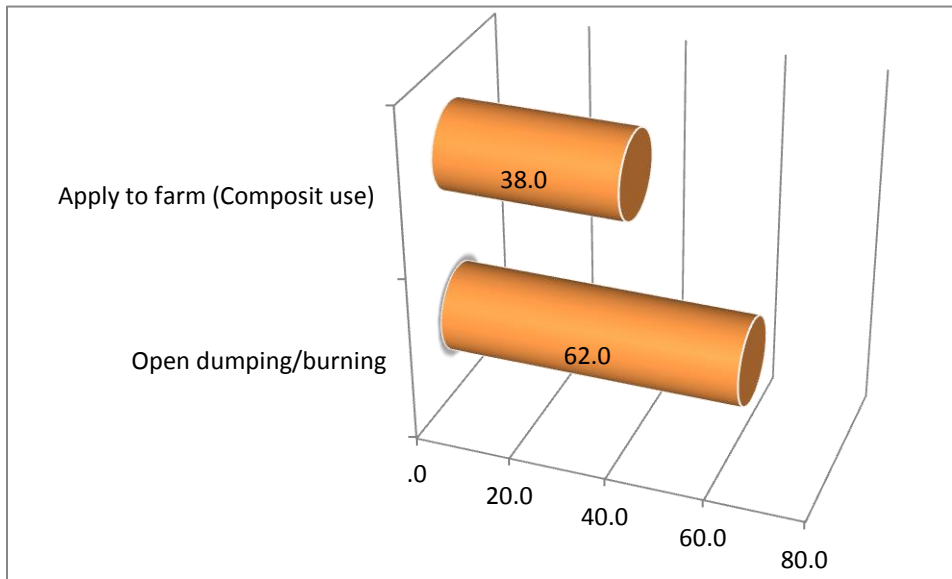
Chart 4.5: Methods of Waste Water Disposal



Source; Author, 2014

Open dumping and burning is the most commonly used method of solid waste disposal with 62% of the respondents preferring this method to dispose and manage waste, 38% of the respondents amongst households apply the waste to farms for composite use.

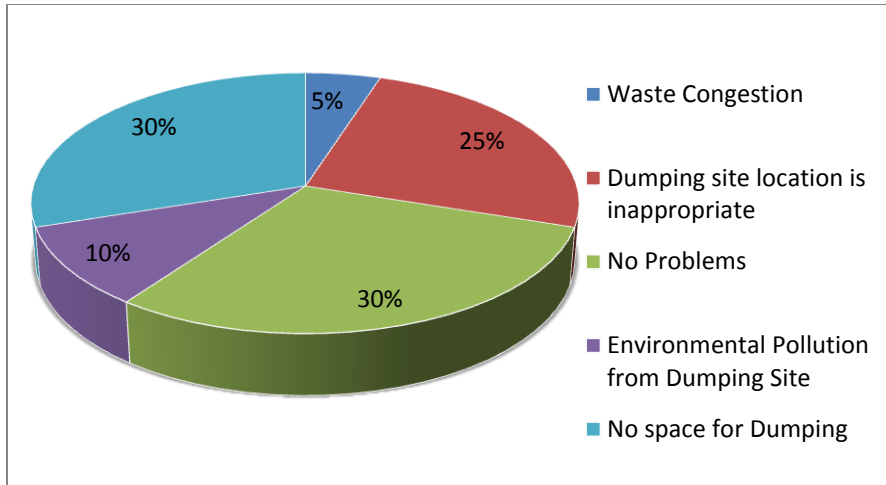
Chart 4.6: Method of Solid Waste Disposal



Source; Author, 2014

Solid waste management remains a problem amongst the residents of Vihiga Town. It is increasingly becoming a major challenge in the town. The challenge of solid waste management is set to increase as the county undergoes urbanization, coupled with the increasing population. Poor waste management poses health and environmental challenges including contribution to global warming and climate change through the emission of greenhouse gases (GHG). Asked about the most prevalent problems, 25% felt the biggest problem is that dumping site location is in-appropriate, 30% were of the view that lack space for dumping is a big issue, while 5% think waste congestion is a major problem, 10% think the environmental pollution from dumping site that are next to road reserves are the biggest problems, however 30% feel there are no problems in solid waste management.

Chart 4.7: Problems in Solid Waste Management

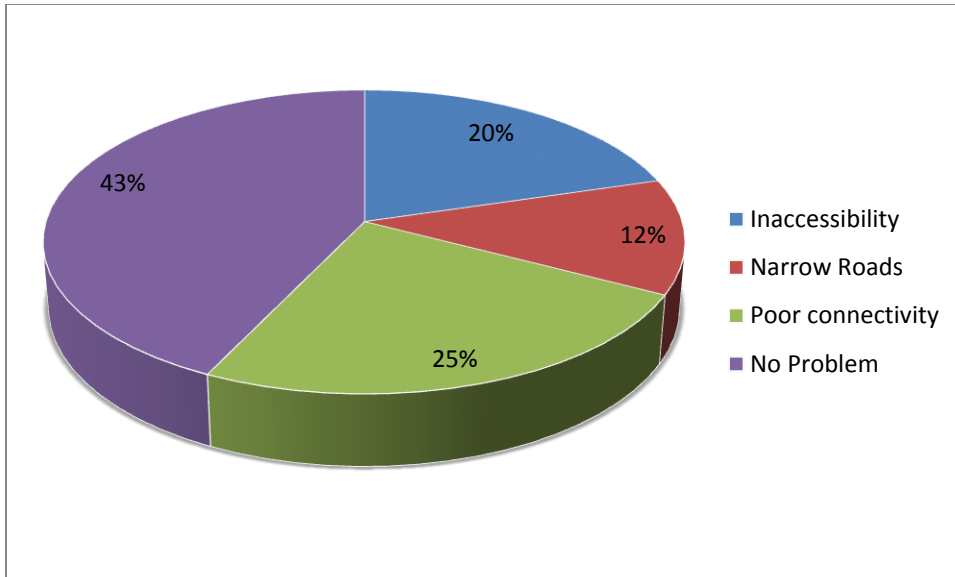


Source; Author, 2014

On transportation, the research indicates that 25% of the respondents amongst households complain of poor road connectivity in the town as a major transport problem, 20% are affected by inaccessibility and 12% experience narrow roads. However a significant number of respondents amongst households (43%) do not face transport problems.

Rehabilitation of existing roads, road widening and construction of new roads were suggested as the best way to solve transportation problems.

Chart 4.8. Transportation Problems



Source; Author, 2014

Some of the planning challenges encountered in the study area were identified as: High population growth rate scarcity of land, ignorance to the law, lack of adequate data for planning, lack of financial resources, surveillance incapacity by the county government and statistic planning policies.

4.2 Development Control

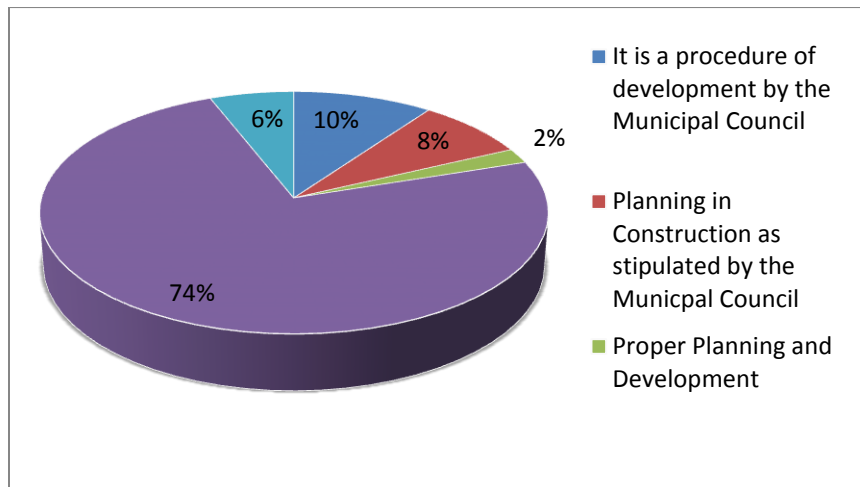
Development control is a combination of efforts that are geared towards the realization and actualization of proposed land use within a given spatial area. It facilitates appropriate development by recognizing its significance in built environment and protecting a healthy economy and a sustainable environment. For instance it evaluates the potential impact of the proposed development, protects the public interest from inappropriate development and involves compliance of all the set procedures, set regulations and standards to ensure that proposed developments conform to the approved plans. Development control is placed traditionally after post planning faction.

Development control as an important tool for urban management ensures that the continual growth and management of a town can be such that make for orderliness, improved town image,

healthy and aesthetics. It also ensures that environmental challenges that result from town growth can be reduced to tolerable levels.

The researcher in effort to assess the understanding of the respondents who are developers on what development control entails established that 10% of the developers think that development control entails a procedure of development by the municipal council, 8% think that it entails planning in construction as stipulated by the municipal council, 6% attribute it to laws and regulations in the construction industry while 2% associate development control with proper planning and development. However 74% of the respondents amongst the developer don't know what development control entails.

Chart 4.9: What Does Development Control Entail



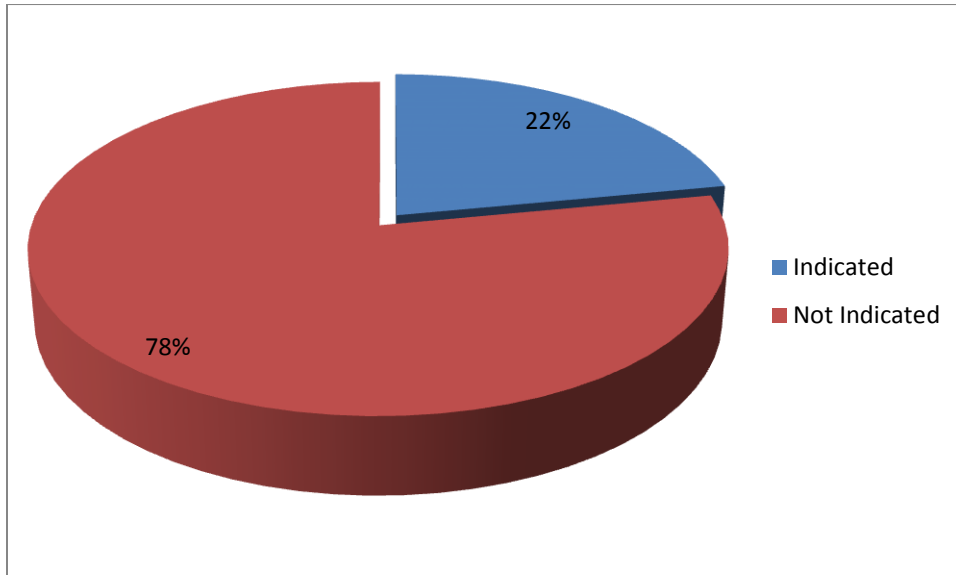
Source; Author, 2014

4.2.1 Knowledge of Plot Number

Identification of properties, labeling and allocating plot numbers forms the preliminary exercise in processing plot allocation document. Plot numbers form a key component in titling of plots and parcels of land. Identity of land is via a land reference number or a title number. Application for development permission forms must be accompanied by the plot number for identification by both the approving authorities and the enforcement officers. For efficiency there must be a general knowledge about the plot number amongst the developers, the approving authorities and

enforcing officers. Asked if they knew their plot numbers, 78% of the respondents amongst the developers did not know their plot numbers only 22% were able to indicate their plot numbers.

Chart 4.10: Knowledge of Plot Number

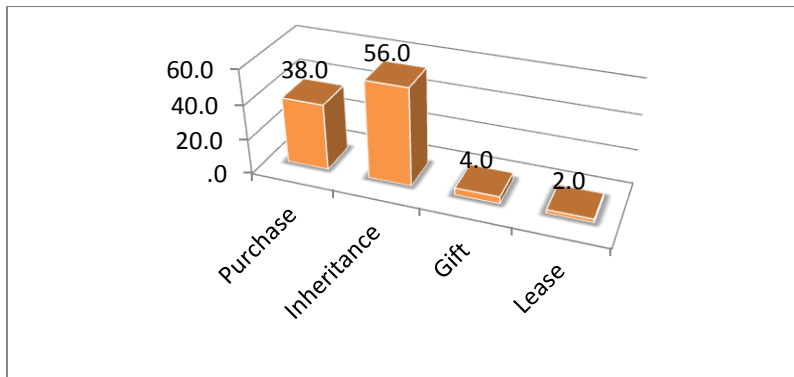


Source; Author, 2014

4.2.2 Methods of Acquisition

The main means of land acquisition in Vihiga town is via inheritance. Amongst the respondents who were the owners of the properties, 56% inherited the properties, 38% purchased the property, 4% possessed it through gifts and 2% have it as a lease.

Chart 4.11: Method of Land Acquisition



Source; Author, 2014

4.2.3 Knowledge on Development Control Tools

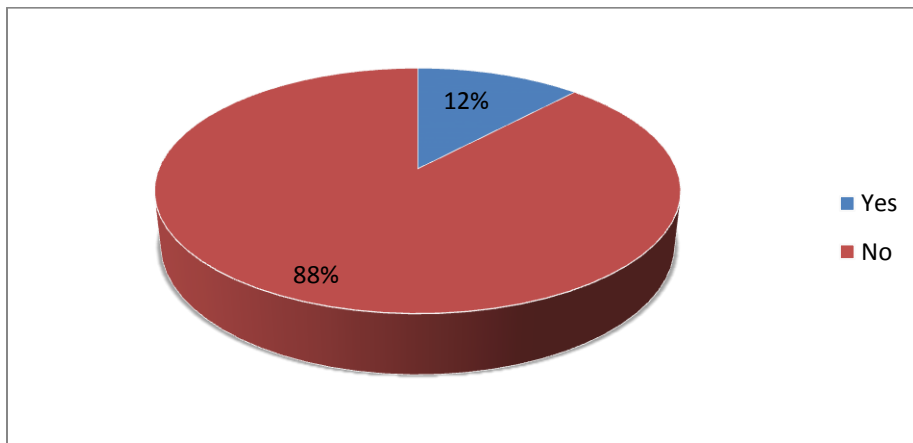
Land use zoning is a system of designating the town into different uses. Many towns are loath to zone their territory due to concerns that it will be used by others to undermine the rights and wishes of the authorities. Land use zonings are a useful tool for providing management direction for areas with similar issues, resources or values.

In an effort to establish if the respondents amongst the developers have knowledge on development control tools used in Vihiga Town, 80% were not aware of the zoning regulations, only 20% of the respondents were aware. On plot sizes and areas, 38% had knowledge, while 62% had no knowledge completely about this tool.

68% had no clue about the existence of the plot coverage regulation, while 32% were aware. 72% of the respondents amongst developers are not aware of the applicable plot ratios in Vihiga Town while 28% are aware. On building lines and building setback, 76% had no knowledge while 24% had an idea on the applicable standards. 26% of the respondents amongst the developer could at least tell what a buffer zone is while 74% had no idea.

On application of the above tools, 88% of the respondents amongst the developers have never applied them only 12% have at one time applied at least one of the tools applicable for development control.

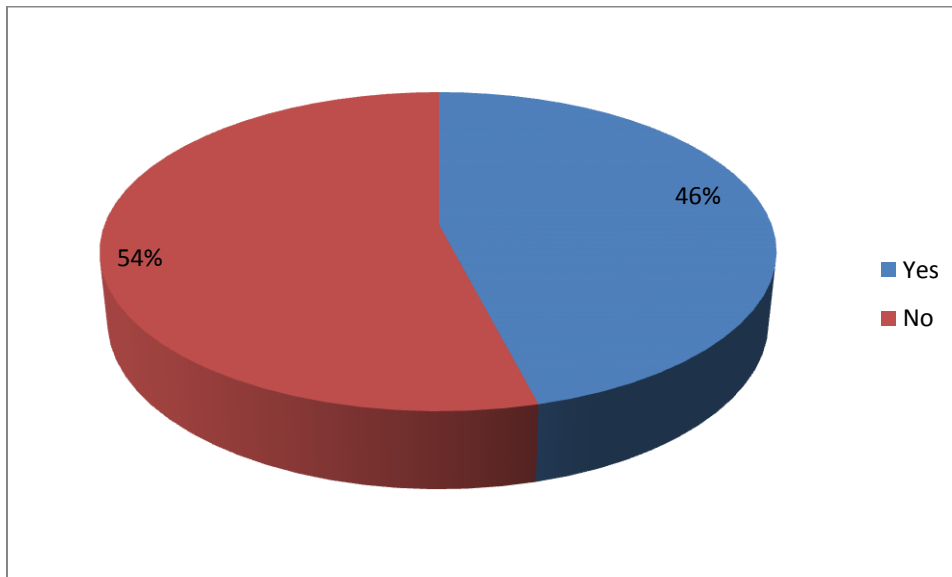
Chart 4.12: Have Ever Applied The Development Control Tools



Source; Author, 2014

The researcher tried to establish from the respondents if the developments taking place in Vihiga are controlled. The research indicates that 54% of the developments taking place in Vihiga Town are not controlled while only 46% are controlled. This could be indicative of minimal regulations in the built environment sector and high level of unplanned and uncontrolled developments in the county.

Chart 4.13: Whether Development Taking Place in Vihiga is Controlled



Source; Author, 2014

4.3 Institutions Charged With Development Control

There are several institutions charged with development control.

4.3.1 Land Control Board

The land control board controls transactions related to agricultural land. The controlled transactions affecting agricultural land is prescribed in section 6(1) of The Land Control Act, cap 302. Apart from controlling the sale of agricultural land, the board approves subdivision of agricultural land to be held under separate titles. It is also involved where there is a subdivision of land of an area of less than twenty acres into plots in an area to which the development and use of land (planning) regulation 1961(now repealed) apply.

The board in Vihiga County does not have an enforcement unit. It only comes in when there is a dispute or a reported case. The board doesn't have authority to decide how an urban area is increased. Membership of the board comprises of gazette members as prescribed in The Land Control Act. The land control board does not relate with other agencies that control the use of land in urban areas, instead concentrates on agricultural land. The secretary to the land control board while acknowledging that they are guided by the provisions of The Land Control Act, he confessed that they have no policy guidelines and strategies directed at achieving a well-developed town. Most disputes are referred to the county land surveyor.

4.3.1.1 Institution Capacity of the Land Control Board

When satisfied with the application of development permission especially subdivision transfer, mortgage etc., the land control board issues a land control board consent as a permit. The chairman of the board is a government officer from the former provincial administration, not more than two other public officers, two persons nominated by the county government and between 2-7 persons resident within the area of jurisdiction of the board (In this case the former Vihiga municipality where Vihiga Town falls). All the above are appointed by the minister for the time being in charge of lands. The board in charge of lands does not have specific offices hence operates within the chairman's public office and the office of the district land registrar.

The financial vote of the board is controlled by the district/county land registrar. Land registration is a function of the national government.

4.3.2 Public Health Officer

The department of public health is a creation of the public health Act cap 242. The health inspector is required to attend to enquiries and inspection regarding to any matter incidental to public health in development activities.

The objectives of the department at the town level (according to the officer interviewed) include;

- a) Approving all building (except government buildings).
- b) Ensure the buildings are up to standard.
- c) Issue occupation certificate after completion of construction.
- d) Conduct an annual inspection of business premises to ensure that they maintain standards.

e) Issue occupation certificates for business premises.

The department of public health relate with other agencies such as physical planning former local government) currently engineer section of county government and public works only through approvals. The approvals are done by individual offices and the approvals have no joint exercise in relation to the enforcement.

The public health officer interviewed was not aware of the existence of the Vihiga town development plan hence could not comment if the development taking place in Vihiga is guided by a plan.

4.3.2.1 Development Control Policy Guidelines Used

The public health department relies on The Public Health Act, section 116 which addresses issues to do with nuisance and the building code which guides on the material used. Non-compliance with the standards calls for:

- a) Issuance of a statutory notice to the defaulter for non-compliance
- b) Prosecution in a court of law is an option available to the public health officer.
- c) Intensive follow up is also used as a strategy to ensure compliance. This is mostly for developers right from the inception of the project to completion

The department issues certificate of fitness upon inspection of buildings. Interestingly nobody has ever been issued with this certificate in Vihiga town.

4.3.2.2 Institutional Capacity of the Public Health Department

The department public health in Vihiga County has a total of 20 trained public health officers. The training ranges from certificate to diploma in public health. Each public health officer is an inspector in the respective sub-counties. The department shares support staff with the sister department in the office of medical officer of health.

The office lacks professional equipment required to assess standards. They have no inspection equipment required to assess the level of dampness, intensity of light etc., they rely on general observations.

The department lacks a vehicle for its operation, although they occasionally borrow for the medical officer of health. The department is in possession of motor cycles which are used for their other operations including food on shelves inspections.

The department has a shortage of the necessary stationary including computers and related accessories. The allocation of funds remains unclear. Initially the national government provided funds although not adequate for development control activities but was at least sufficient for other operations such as immunizations and vaccinations. The county is yet to provide funds for development control to the department. The study also established that the department of public health is generally dependent on donor funding and it's heavily funded by the international partners.

4.3.3 Town Engineer

The office of the town engineer was the central point of development control in the former Vihiga municipal council. Currently it is a department in the county government. The officer charged with approval of development applications in Vihiga county government is the works officer. This section is charged with enforcing The Physical Planning Act, enforcement of development control, revenue collection from development activities and assessing the quality of work by ensuring quality prevails. The department acknowledges public health, physical planning and NEMA as the other agencies charged with development control. This other agencies do approve development applications on their own, starting with physical planning and lastly the engineer's office. The process takes one day to three months depending on the availability of the approving authority. There are no joint meetings for approval, enforcement is not co-ordinated and every department does enforcement individually.

The office of the town engineer (in this case the works office) relies on the 1969 building code as the guiding policy on development control. Currently there are no by-laws in place.

4.3.3.1 Development Control Policy Guidelines Used

The Physical Planning Act is the only guiding statute as per the date of research. This is according to the officer interviewed. Some of the strategies used to achieve a well town include;

- a) **Public education.** This involves using public forums to educate the public on development control matters.
- b) **Enforcement notice.** This notice which is famously referred to as PPA7 is used when warning developers that he/she is required to demolish the works erected which lack a development permit.
- c) **Demolition.** Developments that lack compliance with The Physical Planning Act and Building Code are earmarked for demolition by the works officer. However the works officer acknowledged that it has been long since this took place.
- d) **Prosecution.** Some cases that are to be referred to a court of law for prosecution. However none is on record for prosecution.
- e) **Fines.** Fines are exerted for developers contravening the provision of the law. These fines are mostly collected through impounding of tools .The enforcement officers impound tools belonging to the masons and developers who have not complied, upon compliance, they are required to pay a fine in form of impounding fees. This strategy is commonly used in Vihiga as it complements revenue collections.
- f) **Licensing power.** Licensing power is a key component of development control. There three important licenses that issued to developers inform of certificates, during or upon completion. The council (county government) issues a certificate of occupation upon completion of building works. This is after inspection by the building inspectors. However field study revealed buildings already occupied yet incomplete. Other certificates include certificate of fitness issued by public health department and certificate of compliance issued by physical planning department.
The certificate of occupation doesn't look popular in Vihiga Town. None of the buildings visited had the certificate.
- g) **Patrols by the enforcement office.** This involves scheduled patrols by the enforcement officers within the town. The researcher established the patrols are not frequent. However on the fewer days the exercise was undertaken, it turned out to be a revenue collection exercise.
The workers officer acknowledged that to date there are no set standards that guide development control. There are no minimum plot sizes, maximum plot coverage, and maximum height of building, no plot ratio and no prescribed density in Vihiga town.

4.3.3.2 Institutional Capacity of the Town Engineers Office

This office lacks services of a qualified engineer with a degree. The researcher established that the office has four technicians trained to diploma level. Two technicians have training in buildings, one has a Diploma in Architecture and the head of section has a Higher Diploma in Civil Engineering. The office is served by one clerical officer. The office lacks basic equipment required to test materials that are used in construction. The office relies on the neighboring counties of Kakamega and Bungoma for the same. At times this is left for the contractors to perform the test elsewhere and only bring in the results for filling

The office lacks adequate general office equipment such as computers technical tools and implements used in enforcement. The operations of this office are supposed to be guided by bye-laws which the researcher confirmed that they do not exist. The only guiding statute is The Physical Planning Act Cap 286.

The researcher established that there is no vehicle attached to this department to serve on enforcements of development control. However one vehicle has been availed for the general use of works undertaken and supervised by the works officer. This includes building works, road works and development control.

The researcher established that the section is underfunded. However the budgeted money is controlled by the county government. With stringent procurement rules; the finances provided fail to fund the operations of the section in time. The works officer alluded to the fact that access to the finance is an issue.

The section lacks security personal (*Askaris*) required for enforcing regulations in the context of development control. However the researcher established that the county government has three trained building inspectors who double up as development control officers.

In an interview with works officer, he indicated that inspection is done at least once every week; however efforts to look at the work program and inspection schedules were not successful. The officer interviewed sited personal security of officers as major limitations to enforcement of development controls.

4.3.4 County Physical Planner

The county physical planner is the governor's chief adviser on planning matters within the county. The office bearer is the custodian of The Physical Planning Act in the county.

In an interview with the county physical planner, the researcher established that the key objectives of the department are to ensure that all urban centres within the county are planned, ensure urban areas attain vibrancy through planning and intent to come up with policies to ensure the enforcement is adequately done.

The researcher also established through interview that the other agencies charged with development control include NEMA, public health department, occupation health and safety officer and the office of the town engineer through the works officer.

The researcher established that there is no clear working relationship between the other agencies charged with development control and the office of the county physical planner. There is no joint approach to development control and enforcement.

The researcher established that the department of physical planning does not have set policy guidelines that are used to achieve a well-developed town.

In an interview with the county physical planner, the researcher found out that there are no strategies put in place to ensure that towns within the county are well developed. In fact personal experience on development control matters is the key guiding element. There are no by-laws in use hence the county physical planner relies on National statutes and policy guidelines for his operation; the study also revealed that the office of the county physical planner has no set strategies to curb unauthorized development in Vihiga Town.

4.3.4.1 Institutional Capacity of the Office of the County Physical Planner

The study established that Vihiga county office in-charge of physical planning is understaffed. This trend has been so for almost a decade. The researcher found out that the physical planning office is manned by only two members of staff. This consists of a physical planner holding an undergraduate degree in urban and regional planning and a plan compositor who doubles up as a

support staff as well as a secretary. Due to the shortage, the support staff is forced to perform the duties of the physical planner in his absence.

The office lack services of a technical staff member, probably a draughtsman, a cartographer or a physical planning assistant. The researcher found out the office lacks clerical staff as well as records keeping staff.

The researcher established that the office has only one computer, one drawing table and some borrowed furniture with adequate office space. The department does not have a vehicle and relies on borrowing cars from other departments which come with a complication of fueling the vehicles. In terms of financial allocation, the researcher found out that the resources allocated to the department are inadequate to fund its operations in planning, development control and enforcement.

The study revealed that the operations of the office rely on an outdated Physical Planning Act, cap 286 with fewer references to the Urban Areas and Cities Act.

4.3.5 NEMA

Effective management of environment is fundamental to ensuring sustainable development to the society. NEMA is represented in the county through the office of the district environment officer. The organization is supposed to oversee and provide mitigation measures against environmental degradation due to increased population, unplanned urbanization high level of poverty unsustainable management of the ecosystem and low environmental awareness. As much as EMCA 1999 provides mechanisms to address these challenges, the researcher established that presence of the organization is not felt in Vihiga Town. The environment officer has all the strategies and policy guidelines stipulated in the EMCA statute.

The National Environment Management Authority (NEMA) has overlapping mandates and functions with other institutions working in environmental management. The overlaps and clear demarcations of mandate have impacted negatively on the control of development in line with intergraded environmental management and resistance to the principals of precautionary approach and the pollutes-pays principal. The success of managing the environment depends on the legal, policies, regulations and guidelines set in place.

Despite the harmonization of scattered laws relating laws relating to environment NEMA has continued to face hurdles, some of its mandate tend to overlap with other agencies such as public health.

4.4 Development Control Implementation Challenges

4.4.0 Introduction

Colonialism in Kenya brought with it the modernized perspective of development planning in urban centres. This in Kenya led to evolution of settlements for the European settlers. Focus was on strict zoning regulations with separation of land uses. The need to adhere to such stringent requirements was supported by development control machinery that checked the nature of development in a given area. Although the planning systems were religiously followed before independence, there was laxity after independence which showed total departure from the planning systems and development control.

Urban centres in rural areas exhibit a number of problems related to enforcement and development control. Those problems have led to developments that are characterized by the emergence of informal settlements that are not planned, health risk and crowded. The informal developments have also led to the abuse of the general principals of public interest. The enforcement of land-use regulations is very important if society is to harvest the full potential of its stock of land.

4.4.1 Plan Implementation Challenges

Amongst the common impediments to the effective development control, two categories can be highlighted as those that are associated with defects in the existing legislation and those constrains faced by the planning and development control agencies in their day to day promotion of development control activities. 70% of the respondents amongst the household admit that they face challenges when they want to carry out development, however 30% do not foresee any challenges when they want to carry out development. This could be attributed to the literacy level on development control amongst the respondents. Some of the challenges established include;

a) Ineffective Policy Guiding Development Control

The Physical Planning Act Cap 286 empowers local authorities to consider and approve development applications. If satisfied, the local authorities are required to issue development permits. This research established that there are no localized policy guiding development control in Vihiga Town. All the agencies charged with development control in Vihiga Town were unable to show or produce to the researcher the policy guidelines used in the town worse of, the heads of the agencies in the town were unable to refer to the national policy guidelines for development control. However the departments of public health indicated scheduled inspections and intensive follow up on approved development application. All the agencies lack a template/checklist used for approval. Approval does not follow provision of the existing plan.

The researcher tried to establish from the respondents if the developments taking place in Vihiga are controlled. The research indicates that 54% of the developments taking place in Vihiga Town are not controlled while only 46% are controlled. This could be indicative of minimal regulations in the built environment sector and high level of unplanned and uncontrolled developments in the county.

b) Unsuitable Methodology

When development control activities and enforcement is carried out well, revenue collection became automatic. In Vihiga Town, the researcher established that development control is regarded as a revenue collection avenue. There were instances where developers were found with payment receipts for development applications yet the drawings had not even been prepared for submission. Market committees are not involved at any stage of development planning and development control. However the market committee forwards disputes to the department of physical planning especially when the complaint relates to encroaching on either public or private land.

The researcher also established that there is no coordinated approach to neither approval of development applications or enforcement of regulations. The agencies lack a monitoring and evaluation plan as part of the strategy of ensuring that the permitted developments remain formal developments as approved. There is completely no follow up to the approvals.

c) Delays in Approval of Development Application

Although individual departments could be fast in approval of development application, cumulatively delays are inevitable. Since the approvals are done differently by different agencies at different times, then approval is dependent on availability of individual officers in their offices at the time the application is brought in. The researcher established that when the officer is not in the office then the client will go away with his /her application and only come back with them on subsequent visits. The research established that there is no central repository place where the development application would be dropped so that they can be assessed by the respective agencies. So if luck is not on the side of the applicant, he could miss a particular officer for a very long time hence delay in approval. This delay has led to developers going ahead with developments disregarding approval.

d) Weak Institutional Capability Amongst the Agencies Charged With Development Control.

Agencies charged with development control are created with different acts of parliament. The structure of each department or agency does not relate to the other. This makes the approach to development control to lack focus. Most of the structures in place are an extension of the colonial administration. However with the new system of governance in Kenya, then there is hope for a stronger institutional structure under the governor of the county.

The researcher established that, apart from the department of public health that has over twenty trained personnel, the rest are understaffed and lack the required skilled staff to promote development control activities. Worst hit is the department of physical planning with only one skilled staff and one unskilled staff. The town engineers department lacks the very important '*askaris*' and the required skilled enforcement. Amongst all the agencies visited, development control is not a key activity. The logistical support for development control activities is at its minimal.

e) Political Interference and Lack of Political Will

Under the previous system of government, councilors were fully involved in development application approval. This was through the respective town planning committees. The researcher established that some members of the county assembly carry plans from their supporters in their ward of representation and bring them to the respective agencies for approval. This has compromised the standards so much in that the head of the respective agencies feel intimidated

and approve substandard applications. 84% of the respondents who are developers alluded to the fact that political interference is the cause of informal developments while 16% felt this is not true. The agencies charged with development control also acknowledged that strategies in place to get rid of informal developments are greatly hampered by political interference.

f) Weak Legal Machinery

Kenya as a country has sufficiency in legal machinery for development control. However the national statutes provide for by-laws or county laws that are localized for deal with town planning at local levels. The fines provided for in the national statutes for offenders in development control are most of the time low and affordable hence act as catalyst is disobeying regulations.

This research established that a part from the national statutes in place, Vihiga County does not have by-laws in place either from the previous local authority or the county government to guide development control. The researcher found out that prosecution is there on paper as a strategy to guide development yet nobody is ever arrested and prosecuted. The delay is revising The Physical Planning Act was also listed by the agencies as a negating reason for efficiency in development control.

g) Emphasis on Control Rather than Guiding Development

Urban planning regulations place much emphasis on control rather than on guiding urban development. Asked if this statement is true, the lead agencies in development control acknowledged this to be true. However the 70% of the developers feel that regulations on control are meant to restrict development rather than guide, direct and enhance development. They felt that the statutes for regulating land use are too rigid and outdated and are not conforming to the countries current social, economic and political circumstances.

h) In Adequate Awareness of Development Control Activities and Public Participation

Lack of public awareness of the existence of development control is an impediment to effective development control. Awareness of the development control in Vihiga Town is the first step of the enforcement. 26% of the study population comprising of developers is aware of what development control entails, while 74% have no knowledge of what it is. On further interrogation of the population on what development control entails the research indicates that 10% of the developers think that development control entails procedure of development by the

municipal council, 8% think that it entails planning in the construction sector as stipulated by the municipal council, 6% attribute it to laws and regulations in the construction industry, while 2% associate development control with proper planning and development. Majority comprising of 74% have completely no knowledge about what it entails. This implies that there is the need for development control agencies to intensify and strengthen awareness programs and sensitization of the developers and the general public.

The average plot size in Vihiga Town ranges from 0.045 ha to an average of 0.4ha. About 42% of the developers have an average plot size of 0.045ha and below, 24% have between 0.046ha-0.09ha, 22% have between 0.091-0.18ha, 8% have between 0.21-0.40ha and 4% have 0.41ha and above of land.

This indicates the scarcity of land in this locality. These calls for strict measures of development control. Majority of the developers (respondents) have no knowledge on development control tools. Asked if they have knowledge of the development control tools, the response was as follows (all those who said yes have some knowledge while those who said no have no knowledge);

Table 2: Knowledge of Development Control Tools

Development Control Tool	Yes (%)	No (%)	Cumulative (%)
Zoning regulations	20	80	100
Plot sizes and areas	38	62	100
Plot ratio	28	72	100
Plot coverage	31	68	100
Building lines and set back	24	76	100
Buffer zones	26	74	100
Average	28	72	100

Source; Field study, April 2014

Amongst the respondents who are developers, 88% have never applied the above tools while only 12% have applied at given time. 6% of the respondents who were aware of the need for development permit had sought approval because they wanted to comply with the law while 50%

were not aware of such procedures. 42% were not sure of what was being asked. This indicates that majority of the population lack awareness on development control tools and procedures.

Given the level of awareness amongst the respondents on development control matters, it is evident that the public participation is equally lacking in matter relating to development planning and development control. It is through public participation that the level of awareness will be raised.

I) Land tenure

Land tenure defines the social relations between people in respect of the objectives of the tenure, in this case land. Tenure also defines the methods by which individuals or groups acquire, hold, transfer or transmit property rights in land (Ogola, Mugabe 1996).

Land tenure in Vihiga Town falls within two categories i.e. private and public. The above tenure systems are further divided into sub-categories.

Ideally all privately owned land in Vihiga Town is held under freehold popularly known as absolute ownership, or fee simple tenure, registered under The Registered Land Act (RLA) cap 300 (now repealed) The field survey alludes to this with 92% of the land being on fee simple tenure, 6% on leasehold while 1% is on government land. The 6% available on leasehold was initially trust land (now community land) which changed hand especially to the elite political class at the former local authorities. Both leasehold and freehold (free simple) form the statutory tenure while the remaining category is public.

The Physical Planning Act part 1 sub section 2 states that ‘the provisions of this Act shall apply to all part of the country with exception as the minister may gazette. This indicates that the Act may be enforced on any land tenure in this country’. The registered land act cap 300 (now repealed) gives the registered owner of the land absolute right on how to use his land. It states that ‘no other written law and no practice or procedure relating to land shall apply to land registered under this act’.

All areas are subject to the planning function. This is against the belief that land held under the RLA especially freehold land is not subject to any restriction. To this extend, although The Registered Land Act was repealed there is a gap in knowledge where the freeholders need to be sensitized on the need for land use controls, in that if they fall victims of enforcement action, they should be able to accept the consequences of non-compliance.

4.5 Effects of the Development Control Challenges

Implementation of the local physical development plans and planning regulations are the key challenges in the enforcement of development controls in Vihiga Town. These challenges faced during development control affect the general planning and enforcements output in Vihiga Town. Some of the effects of development control challenges facing town were established to include.

a) Building Regulations

From the study analysis it is evident that non-conforming land uses will negatively impact on sector layouts which will in the long run affect the overall plan implementation programs and the physical growth of Vihiga Town as a whole. This is due to the fact that the physical planning department won't find it easy to monitor space of physical development. Lack of enforcement of development control has led to the flouting of building regulations with regard to the site of building. From the field study it is evident that developers are putting up structures under high voltage power line (plate 4.9).

In regard to development applications, 44% had totally no knowledge of the requirements and procedures involved. These could probably contribute to the higher percentage of people not acquiring title deeds needed for applying for building permits before buildings development.

b) Impacts on Aesthetics

Small traders in Vihiga Town are resorting to use of kiosks for their commercial activities. This has ended up in conflict use of pedestrian walk ways and road reserves for the kiosks. These commercial activities generate a lot of solid waste and since the town and the county at large lack a dumpsite, this has led to littering of the environment which effects beauty of the town.

c) Illegal Land Uses

Unauthorized developments for commercial purposes within the town have had negative consequences on the land uses; the worst of these being the illegal conversion of an open space planed centrally at the heart of the town into a closed market that is current not in use (plate 4.4).

d) Accessibility and Provision of Services

Due to construction of kiosks on pedestrian walkways and road islands, the accessibility within Vihiga Town is greatly impeded, resulting for pedestrian vehicular conflict (plate 4.10). Road reserves are planned and left for future expansion of the roads and also for provision of public

utilities like water, electricity and telecommunication cables. When the road reserves are encroached on, the above utilities are not provided. More so, when the roads are to be expanded, the developers demand for very high compensations before moving out. All the above coupled up with lack of political will have negated the provision of the necessary services to the people of Vihiga Town.

e) Site Inspection and Monitoring of the Developments

Before issuance of any building permit, the approving authorities upon receipt of the development application must visit the site to ascertain the suitability of the site to the proposed development. From the field survey, it was revealed that 28% of the respondents amongst the developers had no building permits and had never encountered any inspector, 28% had been visited by public health inspectors while 44% had been visited by the municipal council inspectors seeking to see if the development had a permit. The survey also revealed 85% of the landlords with permits had made amendment to their building without seeking approval of the amendments.

Poor monitoring and evaluation is evident due to lack of building permit and lack of approval for amendments'. Lack of adequate number of qualified inspectors' has led to spread of substandard housing and site of buildings at inappropriate places such as under high voltage power lines (plate4.9).

4.6 Causes of Informal Developments

Informal developments encompass many dimensions and variation in Vihiga Town. They include;

- i) Occupation of public, communal and private land, followed by self-construction and occasionally in originally approval subdivision schemes:
- ii) The unapproved subdivision of private land or public land followed by the sale of individual plots followed by self-construction;
- iii) Urbanization and development of areas defined as rural;
- iv) Occupation of environmentally protected areas:
- v) Occupation of public spaces such as road reserves, pavements and public open spaces.

The informal developments do not conform fully to the requirements of the laws or regulations. The field study established several causes of uncontrolled developments they include;

a) Scarcity of Land

Scarcity of land in terms of affordability and availability is a major problem in Kenya today. This has greatly affected the low income earners and young graduates from colleges. Due to scarcity, the level of utilization of land has become high as compared to the set down utilization analysis. This has negated the spirit of plot ratios, plot size, building line and plot coverage.

The indices have been ignored in the development of housing units in Vihiga Town. Most developers in Vihiga Town have ignored most of the land development control measures leading to illegal developments.

b) Corruption

There are developments that don't meet standards but no enforcement official has raised issues with them. Other developers have bought their way out through corruption, nepotism and favoritism. Most of the illegal developments got protection from (former) senior municipal council officers and councilors (now MCAs).

c) Land Use Conflicts

Planning of the town did not put in mind future population growth and the resulting changes in technology. Most of the uncontrolled structures harbor commercial activities. This is evident for inadequate provision of land for commercial use. The commercial activities include retail shops, wholesale stores, supermarkets and petrol service stations. Kiosks are constructed on road reserves and on open spaces.

d) Housing Demand and Ineffective Housing Policy

In the year 2003, the government promised to provide 150,000 unit of housing every year. This was to be realized through government and private sector joint effort. This has not been successful since housing for low income earners have not been provided for. The field survey indicated that most of the illegal developments are occupied immediately on completion. Site and service schemes are no longer being impressed within the present government policy on

housing. Research in the study area established preference to development ‘growth’ rather than development control by both the authorities and the developers.

e) Political Interference

The approval process for development permissions is often politicized and based on popularity of individuals who are politically connected. These are especially those who sponsored their campaigns for the various political and committee posts. This has resulted in misplaced developments hence uncontrolled developments.

f) Institutional Incapacity

The weakness of the municipal council of Vihiga (now Vihiga county government), in controlling developments has led to a rapid increase in uncontrolled developments.

It is a requirement under the Physical Planning Act, cap 286, Local Government Act, cap 265 and the Building Code that before any building works are commenced; approval must be sort from the council, public health department and physical planning department. It is the implementing authority that is in charge of enforcement in this case the municipal council of Vihiga. This has not been the case fully for Vihiga Town; some buildings don’t have approvals. The Registered Land Act (cap 300), the Registration of Titles Act (cap 281) and The Government Lands Act (cap 280), (now repealed) offering leases and grants to developers have a condition that the plots should be developed within two years of registration. The special condition has not been enforced by the local authority. This has led to holding land for speculative reason, denying prospective developers the land to use in increasing the volume of housing. Some plots registered twenty years ago still remain undeveloped to-date encouraging forgeries and double allocations due to politically organized revocations.

Some development applications are accorded approval by officers while in the office without visiting the site, this leads to making un-informed decisions.

Lack of public education has led to an increase in uncontrolled developments.

The building code empowers the council to occasionally test building materials used by developers in construction of buildings. However the council does not have the materials testing

equipment nor the experts. This is to imply that this vital part of development control is not being undertaken. This has led to use of substandard materials hence the frequent collapse of buildings.

Reluctance and ineffective monitoring of developments give the developers a leeway in carrying out illegal developments on land and in any way they wish to develop. This has led to an increase in uncontrolled developments in Vihiga Town.

g) Urbanization

A global tipping point is estimated to have reached in 2007, when more than half of the Earth's population was found to be residing in urban zones. Urban areas will house another 500 million people in five years, according to the International Federation of Surveyors. Job opportunities and increased prospects for material gain have accelerated the rapid growth of megacities, those urban areas that support a population of at least 10 million.

Urban areas have caused dramatic social and economic disruption. Governments are unable to manage swelling responsibilities. Much growth takes place outside of any formal planning and administrative processes. In developing countries like Kenya, majority of the urban population resides in informal settlements.

The research established that there is some level of awareness on the causes of informal developments. Asked if they thought some factors contribute to development of informal structures, the respondents who were developers in a yes-no answers stated as follows;

Table 3: Causes of Informal Development

Causes of Informal Developments	Yes	No	Cumulative
Poor land use planning	84	16	100
Political interference	70	30	100
Weak institutional capacity	78	22	100
Weak legal framework	78	22	100
Stringent building regulations.	86	14	100
Ignorance	78	22	100
Poor coordination in development control	80	20	100
Land tenure systems	62	38	100

Source: field study April 2014.

The developers agree that poor land use planning, stringent building regulations and poor coordination in development control are the main causes of informal development in Vihiga Town.

4.7 Impacts of Informal Developments

The impacts of informal developments in Vihiga Town were found to exist in two categories namely planning problems and land use based infringements.

4.7.1 Planning Problems

The local physical development plan for Village Town was prepared in 1969. During planning, many important aspects were overlooked when providing for services such as space for education, parking and provision for space for traffic management. This has led to a mix up in land uses affecting the existing services. There is no specific holding ground for garbage before collection; this has led to residents dumping garbage by the road side (Plate 4.6). Worse more, the county of Vihiga as a whole lacks a dump site for garbage disposal. Due to lack of control on the use of land, the sites set aside for important public utility services is currently developed and occupied for other uses.

The town lack a bus park, a '*matatu*' terminus and parking slots for traffic management, this has led to people parking by the road side (plate 4.3) and collecting passengers in non-designated areas (plate 4.2a-b).

Due to poor planning most informal developments are not connected to basic infrastructure such as water and electricity. Vihiga water supply which is located in the vicinity of the town currently lacks the capacity to supply water to the whole town. This is to because it was designed to serve a lower population.

Poor quality of road network and public transportation tend to encourage dependence on private means such as motorcycle, private cars etc.; thus increasing traffic, commuting costs and time, air and noise pollution. Although 43% of the respondents amongst the households had no problem related to transportation, 20% are affected by inaccessibility, 25% complain of poor roads connectivity while 12%complained of narrow roads. Luanda-Hamisi road which is a major road within the town is narrow (18m); this reduces the road reserve which is supposed to be used for provision of other services and pedestrian walkways. Narrow roads lack drainage, hence peeling off of the tarmac (plate 4.11)

Informal subdivisions within private land has complicated registration of property rights and land restitution procedures and thus weakening the land administration and management systems. This has led to an informal land market functioning outside the formal land market. The result is that bank loans are not available to investors in the informal market.

Structures are built without regard to planning standards. Some of the uncontrolled developments are constructed using poor quality material hence become a source of poor health. Some of the structures are built on road reserves while directional signs are placed at the center of a road obstructing visibility (plate 4.7).

4.7.2 Land Use Based Infringements

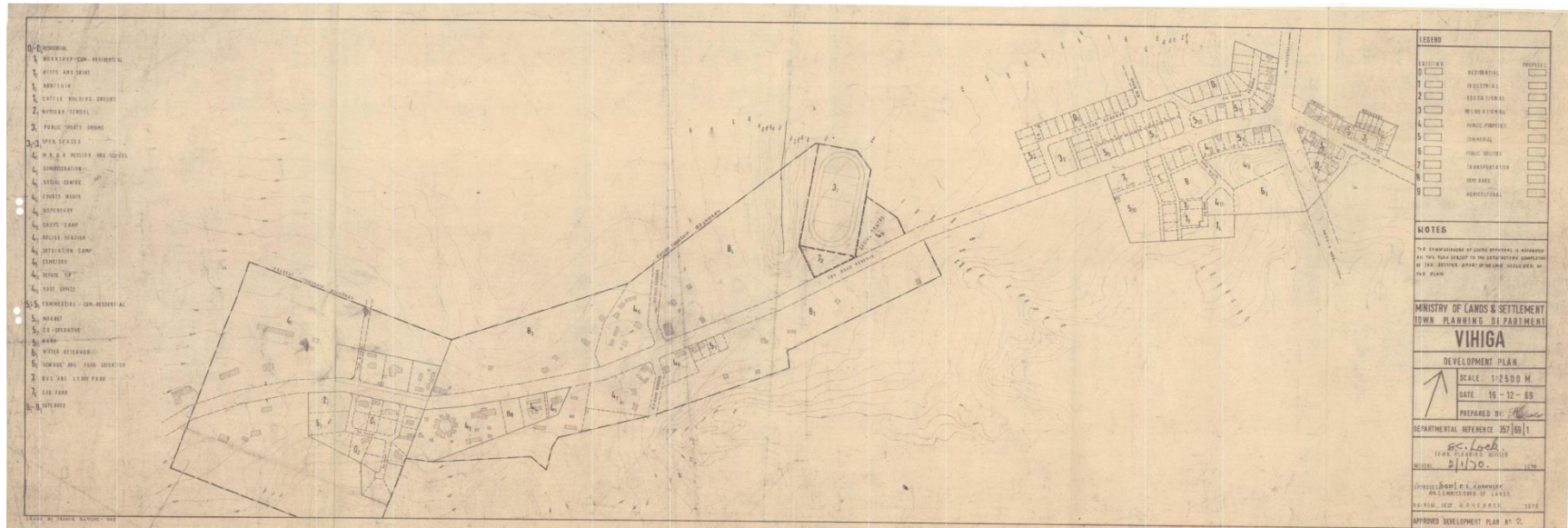
Land use is determined by the physical planner in consultation with the stakeholders during preparation of local physical development plans, strictly after analysis of the situation. In Vihiga Town, the research established the existence of structures that do not conform to the planned land uses. An example is the disused closed market built under the economic stimulus programmed by the government of Kenya (Plate 4.4). The land on which the market stands was planned for an open space. The new market lacks a parking making its technically not viable hence disused.

Hawkers and vegetable vendors sell their wares near the junction of Vihiga–Hamisi and Kisumu-Kakamega roads. There is an element of congestion arising as a result of poor land use allocation (Plate 4.12). The research also found out that there is a haphazard distribution of land uses 90% of the structures within the CBD house commercial activities. Development is linear along major transportation routes. Educational institutions in the towns are not evenly distributed. Private educational institutions do not conform to planning. The only existing tertiary institution St. Joseph Teachers College is built on agricultural land and no evidence of change of user was provided. Pre-schools are housed in residential areas. These institutions are licensed but no change of user has ever been done hence informal developments which are non-compliant with The Physical Planning Act. Kiosks are built on road reserves (plate4.13), an indication of lack of planning for the land use activities being undertaken in the kiosks.

4.8 Conclusion

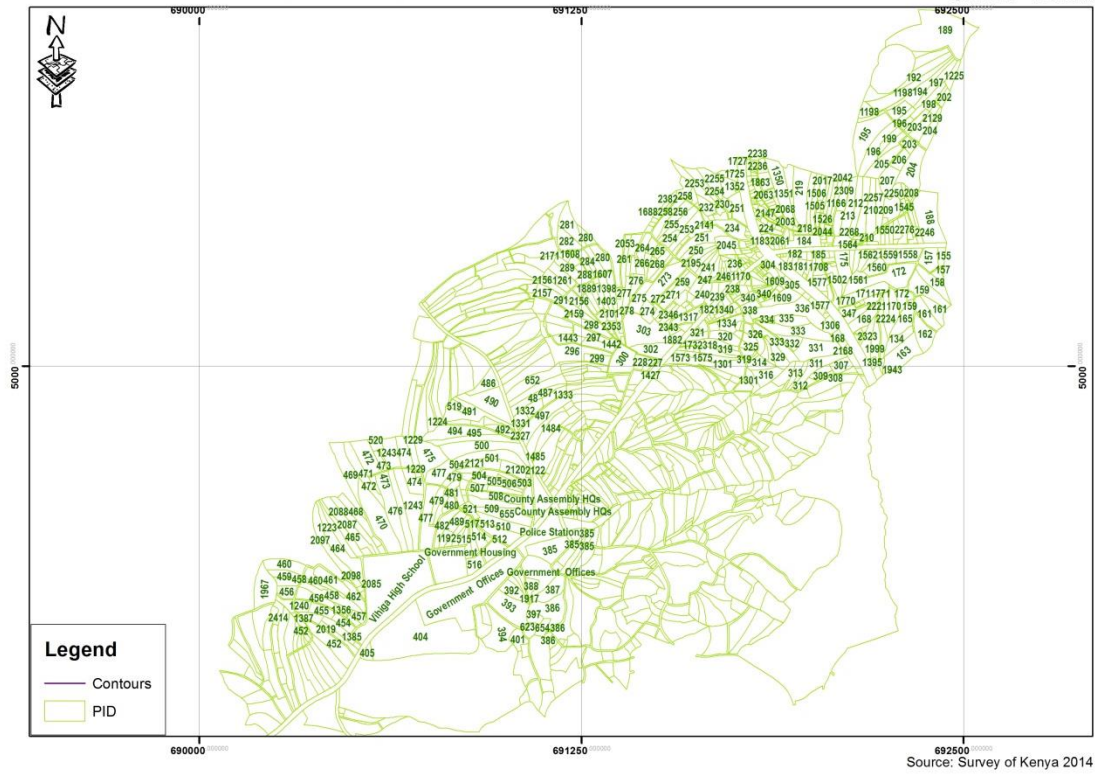
This chapter dealt with the analysis and presentation of the collected data. The response rate for the questionnaires administered to the developers and households was 100%. However this was after a lot of follow up and extending allocated time to allow for collection of the questionnaires from the developers. The questionnaire for the county physical planner and county public health officer was similar. 80% of the information was consistent, however 20% was varying. The information so given could be limited to experiences of the officers and so do not necessarily represent those of the County Government of Vihiga.

Fig 2.2. The 1969 Vihiga Town Local Physical Development Plan



Source: Physical planning department 2014

Map 3. Preliminary Index Diagram



Map 4. Overlay of Local Physical Development Plan and Preliminary Index Diagram

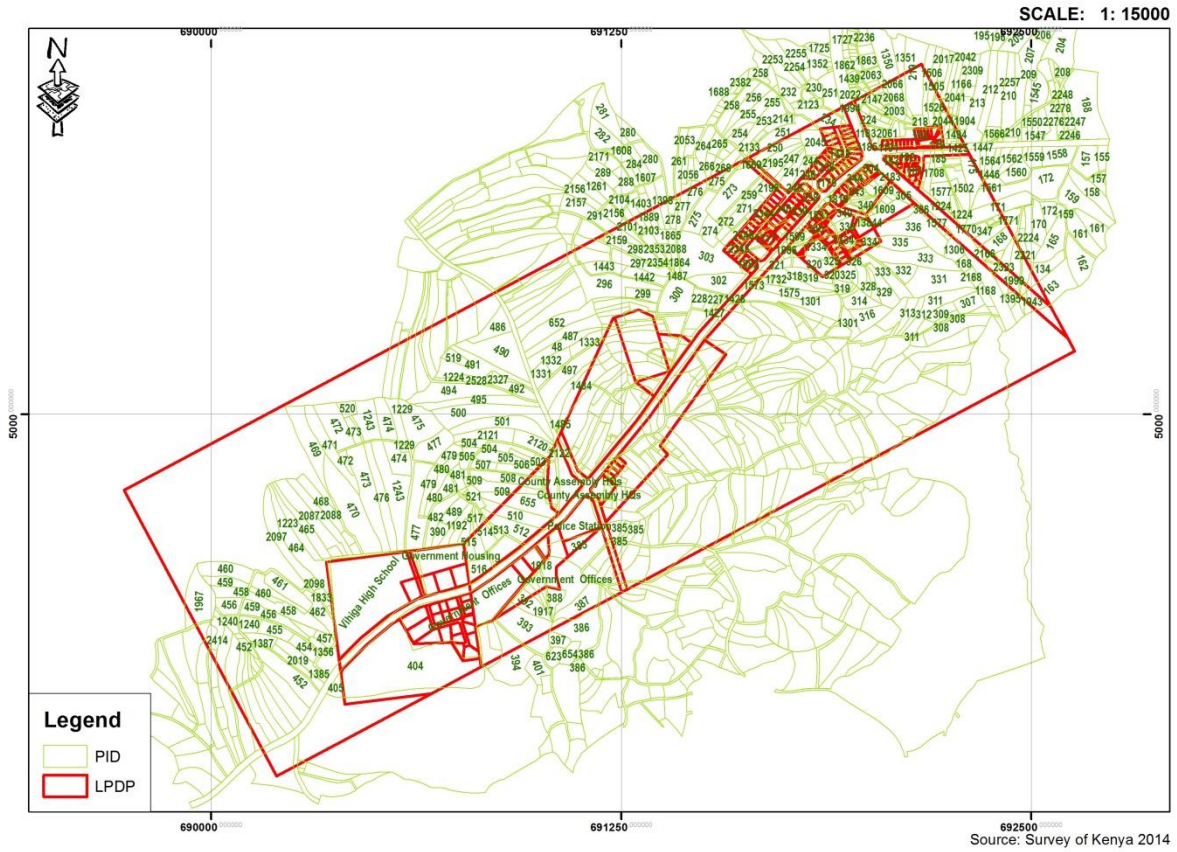


Plate 4.1: Private School on a Planned Stadium



Source; Field study, April 2014

Plate 4.2 a: Public Service Vehicles Collecting Passengers by the Road Side



Source; Field study, April 2014

Plate 4.2b Collecting Passengers in Non-Designated Area



Source; Field study, April 2014

Plate 4.3: Parking of Cars by the Road Side



Source; Field study, April 2014

Plate 4.4: Closed Market Developed on a Planned Open Space



Source; Field study, April 2014

Plate 4.5 Vendors Selling Their Wares Along Road Reserves



Source; Field study, April 2014

Plate4.6: Garbage Dumped by the Road Side



Source; Field study, April 2014

Plate 4.7: Directional Signs at the Middle of a Road Junction



Source; Field study, April 2014

Plate 4.8: Commercial Building on a Planned Cemetery



Source; Field study, April 2014

Plate 4.9: Buildings Under High Voltage Power Lines



Source; Field study, April 2014

Plate 4.10: Pedestrian-Vehicular Conflict Due to Lack of Pedestrian Walkways



Source; Field study, April 2014

Plate 4.11: Tarmac Surface Peeling Off



Source; Field study, April 2014

Plate 4.12 Congested Junction With Structures on Road Reserves



Source; Field study, April 2014

Plate 4.13 Kiosks on Road Reserve



Source; Field study, April 2014

Map 5. Situational Map



Source: Author, 2014

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of findings, conclusions and recommendations which are based on the findings from the data analysis made during field work. The focus of the study was to assess the level and effectiveness of development control in Vihiga Town in Kenya. The study has revealed the nature, causes and effects of uncontrolled developments in the study area. This section gives suggestions that if adopted could improve development controls in upcoming towns in rural areas.

5.1 Summary of Research Findings and Discussion

At the onset of the study, there were issues relating to development planning and development control that were highlighted. The study revealed that Vihiga Town was planned in 1969 and the local physical development plan was approved although it has not been revised since then. The plan is outdated and is not being used as guide to development control and development growth. Since it is outdated, it cannot form a basis or provide a framework for guiding urban development in the 21st century especially in Kenyan new system of governance.

There exists a legal framework that guides development control in Vihiga Town. All the regulations are derived from the national statutes guiding land use control. They include The Land Commission Act no 5 of 2012, The Physical Planning Act, The Land Control Act, The Environment Management and Co-Ordination Act, The Public Health Act, The Registration of Titles Act No 3 of 2012. The Land Act no 6 of 2012 amongst others. Although there existed by-laws before the passing of the new constitution that brought into effect the county governments, none of the by-laws is in use in Vihiga Town. The national policy guidelines guiding development control are applicable in the study area. However their effect is not felt.

The public health department is strictly guided by the provisions of The Public Health Act during approval of building plans and other development applications. However the Engineers' department and the physical planning department lack a template that is supposed to guide approval process. In fact the engineers departments through the works officer have no idea of what they are supposed to check during the approval process.

The approving authority in the works office check only on the quality of draughtsmanship as a yard stick for approving building plans. The department of physical planning did not provide to the researcher the policy guidelines used in approval of developments applications. The county physical planning officer acknowledged that the current local physical development plan is not being used as a template for approving development applications. Charges for approval are not standardized hence the works officer and the physical planner are at discretion to charge what they feel is appropriate.

The research found out that there is no follow up to the implementation of the approved development applications. This has led to cases where by building plans are approved as a formality and revenue collection tool not as development control measure.

The study established that there are set strategies that are used to achieve a well-developed town. They include public education, issuance of enforcement notice (ppa7), demolition of informal developments, prosecution, fines for contraveners of the law, the licensing power and patrols by enforcement officer. The above strategies are good, although they have not been very effective.

The study illustrated that there is inadequate institutional capacity to deal with informal developments. It is only the department of public health that demonstrated adequacy in skilled human resource to deal with development control. All the other agencies charged with development control lack adequate skilled staff required to deal with development control. They also lack logistical support for development control. Machinery for testing building materials is not available. General office equipment such as computers is evidently not sufficient for the institutions charged with development control in Vihiga. Financial allocation for the institutions is very low and hard to access making it difficult for the institutions to run the development control programs. The enforcement unit is literally absent and lack of security personnel (*askaris*) makes it worse to enforce the regulations. The impact of NEMA activities in relation to development control are not felt in the county. There are numerous problems of development control in Vihiga Town. They arise from gradual deviation from the approved developments plan and deviation from planning standards. The main violators are both public and private sectors helped by the inefficiency, indiscipline officials and compromises made by the county government agents charged with development control. The common contraventions' are encroachment on road reserves and open spaces, buildings put up under high voltage power

lines, non-observation of building setbacks, informal subdivision of land, corruption by enforcement officers, failure to undertake charge of user for land use where necessary and general non-observation of planning laws.

The study established several challenges facing development control. Most of the challenges affected plan implementation and enforcement of the development control regulations are ineffective policy guiding development control, unsuitable planning and development control methodology, delays in approval of development applications, weak institutional capability amongst the agencies charged with development control, political interference, weak legal machinery, emphasis on control rather than guiding development, inadequate awareness of development activities and lack of public participation in planning and development control and land tenure system.

The study analysis revealed that factors contributing to the growth of informal developments in Vihiga Town include social factors, political factors and economic factors. These causes are;

a) Scarcity and Lack of Access to Land

The population of Vihiga has been growing very steadily yet the land resource has remained static. This has led to pressure on existing land hence over densification and contravention of set indices of land as set by the regulations. Cultural practices relating to inheritance have also denied would be beneficiaries' of land their rights to own and this further complicated for girl child. Succession remains the biggest problem in Vihiga Town when the registered owner dies.

b) Corruption

Some of the development control officers have been compromised by the developer's hence poor enforcement.

c) Land Use Conflicts

Vihiga is basically a town within a rural area. It harbors low income earners who need to supplement their income with some commercial activities that are of income generating nature. Rents in commercial buildings are not affordable forcing residents to put up kiosk along road reserves to rent or use for their activities.

d) Housing Demand and Ineffective Housing Policy

The headquarters of Vihiga County is in the neighboring Mbale town. Housing demand caused by the new administrative centre added to the already high demand from the staff of the Vihiga law courts, Vihiga high school, and Vihiga dispensary and government offices within the town has led to a strain on the available housing units. The demand calls for hurried construction hence informal developments. Although the Kenya government has implemented policies to provide housing for the urban poor, their efforts has proven futile. According to Housing the Urban Poor, several governments have pursued anti-urbanization policies. They have evicted people from informal settlements, razed the housing, and sent the dwellers back to the countryside. These measures fail to stem the tide of urban migration. As the options dry up, the government has resorted to a "blind-eye" approach. They furnish basic services to informal settlements and only evict squatters if they need the land. Preference to development growth rather than development control is equally a contributory factor to informal developments.

e) Political Interference

Another factor as raised by the individuals and the institutions is the political influence and interference by the local leaders. The study established that demolitions have not been taking place due to lack of political will to enforce planning and development control regulations

f) Institutional Incapacity

The study found out that the institution lack the capacity to enforce regulations, punish contraveners by demolitions and personnel to monitor. They lack the machinery to test materials and demolish illegal structures. If prosecuted the fines levied against the violators are most of the time low and affordable hence fail to be punitive. The institutions revealed that the current statutes operate within the transitional clauses and need a total overhaul or repealing to respond to the new system of governance. This has left a gap in development controls and enforcement.

g) Urbanization

Urbanization with the complication arising due to it has caused dramatic and economic disruption on the use of land. The rate of urbanization in Vihiga has caused the coming up of informal developments.

h) Lack of Co-ordination

The study established that there is no coordination amongst the institutions charged with development control and enforcement in Vihiga Town. The process of approval lack a focal point hence each agency deals with their mandate in isolation. Lack of a coordinated approach to enforcement has led to the growth of informal development.

i) Urban Poverty

Increase in urban poverty is a major concern to effective land use controls. Most of the urban poor reside in slums and squatter settlements which in most cases exhibit poor hygienic environment. Majority of the urban poor are semi-illiterate or illiterate who engage in informal activities for survival which include selling of wares on roadside setbacks. The study also revealed that most of the houses occupied by the urban poor do not conform to building standards.

j) Delays in Approval

Complication arising out of procedures for obtaining development permission makes it difficult for developers in the study area to respond to demand for housing. This in the long run has led to emergence of informal developments in the study area.

The infringement of development control has led to various effects in Vihiga Town which include:

- ❖ Poor garbage collection systems.
- ❖ Poor infrastructure development.
- ❖ Lack of sewerage system leading to poor liquid waste management.
- ❖ Poor health and poor lighting due to non-observation of public health regulation.
- ❖ Lack of recreational spaces.

The research revealed that some buildings are not being used for the designated use. Most land use mixes are incompatible. For example residential buildings put up on agricultural land with no change of user are used as offices, pre-schools and colleges. The businesses had been licensed for the uses in place disregarding the planned use. This revealed the misuse of the licensing power.

5.2 Conclusions

From the findings and analysis of this study, it can be concluded that a Local Physical Development Plan for Vihiga Town was prepared in 1969 and the same was approved 14th November 1970. It is supposed to guide development of the town. Although it is outdated, it is still the legal document that is supposed to guide the socio-economic growth and development of Vihiga Town. The problem facing the town is not land use planning but the administration of development control tools.

Development control systems have not been very effective in the study area. Several reasons have been advanced as to why the former Vihiga municipal council has not been able to implement the planning policies. They include land use planning, political interference weak legal and institutional capacity, stringent building regulations, ignorance, poor co-ordination in development control, land tenure system, delays in approval, urbanization, urban poverty land use conflicts ,corruption, scarcity of land, housing demand and ineffective housing policy. There is lack of customized development control policy guidelines that can be used in Vihiga Town. The strategies used by the municipal council (now county government of Vihiga) such as public education, demolition, fines, enforcement notices, licensing power and patrols by enforcement officers are good and should be enhanced.

Apart from the public health department, all other departments charged with development control have inadequate institutional capacity to deal with the challenges of development control. The aim of development control is to see to it that the pattern and nature of the proposed development on land falls within policies set out in the local physical development plan and follows legislation and guidance as set out in the plan. The growths of uncontrolled developments have preceded in Vihiga Town without regard to the set plan policies. Development controls are now described as inappropriate due to lack of enforcement.

The study has also established several challenges that affect development control. Some of the effects of development control challenges highlighted in the study area include; building regulations, impacts on aesthetics, illegal land uses, inaccessibility and non-provision of services and problems in site inspection and monitoring of development.

It is the desire of the researcher that the issues highlighted should be given maximum attention by both the county government and the central government in collaboration with the National Land Commission so as to improve urban land management capacities. This will ultimately result in improved urban physical environment which will in the long run ensure safety, efficiency, aesthetics, economy, harmony and as well as sustainability of the environment.

5.3 Recommendation

In lights of the study findings and conclusions above, the following measures are recommended;

1. The local physical development plan for Vihiga Town should be revised immediately to accommodate the demographic changes that have occurred in the study area since 1969. The revision should be all inclusive with adequate citizen participation.
2. There is an urgent need to build institutional capacity. For effectiveness and efficiency in development control, Development control sections should be stand-alone department within the directorate of Planning, Housing and Physical Planning in the county government. The department should employ enough qualified personnel (planners, building inspectors, architects, land surveyors and others) to deal with development control and enforcements. The department should be equipped with the necessary equipment for testing materials and estimating of situations, vehicles and other relevant logistical requirements. Exchange programs are recommended with other municipalities across the world that professes success in development controls and enforcement (e.g. Melbourne in Australia and Lagos in Nigeria). Continuous training for staff is recommended to ensure they acquire skills is acquired as the world trend changes.
3. There is an urgent need for intensifying planning education. Planning education should be introduced at high school level in order to reduce the level of ignorance. The county government of Vihiga should create a favorable political atmosphere for the officers charged with development control to enable them perform their roles and function in the built environment. The general citizenry should be educated on the importance of development control regulation and enforcement.

4. There is need for development of a holistic legal document for development control. The county government of Vihiga should develop a template of policy guidelines and strategies to be used in enforcing development control in Vihiga County. The developed policies should be made public as this will improve on the legal framework for development control and enforcement. Sanctions such as heavy fines, imprisonment and demolition should be carried out within the framework of planning legislations.
5. Coordination and co-operation between the development control agencies should be strengthened. It is highly recommended that the various departments and agencies compliment the activities of each other to help curb informal developments. Also to prevent reluctance of people applying for development permission it is necessary that the charges be reduced and collected at one point. This will ensure that building permits are sort as development control activity not as a revenue collection avenue.
6. The process of development applications should be structured. The delays in the approval process should be avoided. The process should be fast tracked with scheduled approval dates. A committee should be set up to handle applications for development permission which should meet regularly to issue building permits. This will ensure that isolated approvals are avoided and challenges that arise due to enforcements are dealt with.

Development control is an activity that is aimed at ensuring orderly and coordinated implementation of land use plans. The study found out that institutional capacity relating to enforcement is weak and planning education is inadequate. It is generally recommended that there be capacity development in the built environment agencies and planning education in Vihiga County.

5.4 Areas of Further Study

Development control is a very wide area which is an integral activity of land use planning. With regards to upcoming towns in rural areas, the following issues may form a basis for further research;

1. Institutional arrangement and capacities to support management of urban fringe area.
2. The role of conflict within the legal framework as a cause of informal developments.
3. Feasibility study on establishment of a National Development Control Authority as a body whose objective is ensuring efficiency in development control systems in Kenya.

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DEPARTMENT OF URBAN AND REGIONAL PLANNING
MASTER OF ARTS IN PLANNING
AN ASSESSMENT OF DEVELOPMENT CONTROL IN VIHIGA TOWN IN KENYA

Date of interview:.....

Name of interviewer:.....

Questionnaire to Developers.

1. Name of respondent (optional) _____
 occupation _____

Plot no. _____

Sex M F

2. a) What is your interest in this property?

- i. Owner
- ii. Caretaker
- iii. Agent
- iv. Other (specify)

b) Which ownership documents does this plot have?

- i. Title deed
- ii. Lease
- iii. Allotment letter
- iv. Doesn't have

3. a) How was this plot acquired?

- 1. Purchase
- 2. Allocation
- 3. Inheritance
- 4. Gift
- 5. Lease
- 6. Other (specify).....

b). What is the Tenure of this plot?

- i. Leasehold
- ii. Freehold
- iii. Trust land
- iv. Government land

c) Have you heard of development control? Yes No

d). What does it entail?

.....

e). Have you heard of the following development control tools?

- i. Zoning regulations Yes No

- ii. Plot sizes/areas Yes No
- iii. Plot coverage Yes No
- iv. Plot ratio Yes No
- v. Building lines (set back) Yes No
- vi. Buffer zones Yes No

f) Have you applied any of the above mentioned during your development activities?

Yes No

g). Why.....

4. What is the size of this plot in hectares?

- 1. 0.045 and below
- 2. 0.046-0.09
- 3. 0.091-0.18
- 4. 0.21-0.40
- 5. 0.41 and above

5. What percentage of this plot is covered by buildings?

- Less than 25%
- 25%-50%
- 51%-75%
- 76%-100

6 a). Which institutions deal with development control?

.....

b) Does your development have approval? Yes No

c) If yes, who approved?

- i. Municipal council Yes No
- ii. Physical planner Yes No
- iii. Public health officer Yes No
- iv. Town engineer Yes No

d) Who among the following public officials has ever come to your premises for inspection?

- i. Public health officer
- ii. Municipal council building inspectors
- iii. County physical planner
- iv. Other (specify).....

e) Have you ever made amendments to the approved plan? Yes No

f) If yes, did you seek approval to the amendments?

Yes No

7) What is the general condition of this property?

i. Good

ii. Fair

iii. Bad

e (i) Has this land ever been subdivided within the last ten years?

Yes No

ii) If yes what were the reasons for the subdivision?

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

iii) What procedures did you undertake?

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

f) Did you seek approval for the subdivision?

Yes No

g) From whom?.....

h) What was the role of the municipal council?

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

8 (a). How do you rate land use planning and development control in Vihiga County

1. Very poor

2. Poor

3. Fair

4. Good

5. Very good

6. I don't know

b) What problems do you encounter in your efforts to comply with development control regulations in Vihiga County?

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

c) What are the challenges facing development control process in Kenya?

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

.....
.....
d) What do you think can be done to improve development control in Vihiga town?

9. Do you think the following are the cause(s) of informal developments?

- | | |
|--|-----|
| a) poverty | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| b) scarcity of land | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| c) corruption | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| d) land use planning | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| e) political interference | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| f) weak institutional capacity | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| g) weak legal framework | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| h) stringent bye-laws and building regulations | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| i) ignorance | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| j) Lack of awareness and poor information dissemination. | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| k) Poor coordination in development control | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| l) Land tenure systems | Yes |
| <input type="checkbox"/> No <input type="checkbox"/> | |
| m) Others (specify) _____ | |

10. What is your vision for Vihiga?

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

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AN ASSESSMENT OF DEVELOPMENT CONTROL IN VIHIGA TOWN IN KENYA
Questionnaire to the Town Engineer (former municipal council of Vihiga)

Date of interview:.....

Name of interviewer:.....

1. What role do you play in development control?
2. What is your area of jurisdiction in terms of coverage in development control?

3. What other agencies are charged with development control?
4. How do you relate with other agencies charged with development control?
5. What development control policy guidelines do you use to achieve a well-developed town?
6. What tools of development control do you use in Vihiga Town?

7. What are the acceptable standards with respect to the following
 - a) Minimum plot sizes.....
 - b) Maximum plot coverage.....
 - c) Height of buildings.....
 - d) Plot ratio.....
 - e) Density.....

8. What is the capacity of your department in terms of;
 - a) Personnel (number and expertise)
 - b) Office equipment
 - c) Legal backing
 - d) Logistics
 - e) Finance

9. a) How many building inspectors or development control officers does the council have?

- b) How frequent do they inspect development projects?

c) Do they have formal inspection schedules? Yes No

10. What is your role in approval process of the following development application?

- a) Subdivision schemes _____ of
- b) Change user _____ of
- c) Building plans. _____

11. What strategies do you use to achieve a well-planned neighborhood?

12. What is the application procedure for securing development approvals?

13. What challenges are associated with each stage of the procedure?

14. How is supervision of developments done while in progress?

15. What challenges does supervision process encounter?

16. What strategies are you using to curb unauthorized developments?

17. What can be done to ensure effective development control in Vihiga County?

18. What is your vision for Vihiga town?

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Questionnaire To The County Physical Planner & Public Health Officer

Date of interview:.....

Name of interviewer:.....

1. What are your objectives of your department in regard to control of physical developments?
2. What other agencies are charged with development control?
3. How do you relate with other agencies charged with development control?
4. What development control policy guidelines and strategies do you use to achieve a well-developed town?
5. What problems do you encounter while implementing development control regulations and their effects in Vihiga town?
6. To what extent are you involved in planning agricultural land?
7. What is the capacity of your department in terms of;
 - a) Personnel (no. and expertise)
 - b) Office equipment
 - c) Legal backing
 - d) Logistics
 - e) Finance.
8. What are the limitations to land use regulations and control within the present legal framework?
9. What are the major impediments to effective development control in Vihiga Town?
10. What suggestions can you make towards findings of a lasting solution to these impediments?
11. What strategies do you employ to curb unauthorized developments in Vihiga Town?
12. Vihiga Town exhibits urban trends of development which call for a planning strategy that is urban in nature. With the set down controls in the Land Control Act Cap 302, how do you deal with this?
13. What is the application procedure for development permission?
14. What are the problems associated with each stage?
15. What role does your office play in issuing development permits?
16. Is development going on in Vihiga Town guided by a plan?
17. What suggestions do you propose to ensure effective development control?
18. What is your vision for Vihiga town

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Questionnaire to the Secretary of the Land Control Board

Date of interview:.....

Name of interviewer:.....

1. What are the functions of the land control board?

2. What is your role in control of the use of land?

3. What other agencies are charged with development control?

4. How do you relate with other agencies charged with development control?

5. Who are the members of the board?

6. What strategies have you put in place to ensure that there are no illegal subdivisions on land?

7. What development control policy guidelines and strategies do you use to achieve a well-developed town?

8. How are you dealing with urban sprawl and urbanization within the context of the Land Control Act cap 302?

9. What is your vision for Vihiga town?

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Questionnaire to Households.

Date of interview:.....

Name of interviewer:.....

1. Name of respondent (optional)_____

Plot no. _____

Sex M F

2. Age of respondent
- i. 20 – 30 years
 - ii. 31 – 40years
 - iii. 41 – 50 years
 - iv. 51 – 60 years
 - v. 61 years +

3. Educational level
- i. Basic
 - ii. Secondary
 - iii. Tertiary
 - iv. Illiterate

4. Occupation
- i. Civil/Public Servant
 - ii. Trader/Businessman
 - iii. Driver
 - iv. General Laborer
 - v. Still searching
 - vi. Other (specify).....

5. Income level per month
- i. Less than kshs. 5000
 - ii. kshs.5001 – kshs 10000
 - iii. Kshs 10001 –kshs. 20000
 - iv. kshs 20001- kshs 30000
 - v. kshs 30001 and over

6. Number of the household members

7. No of habitable rooms in the house a) 1 b) 2 c) 3 d) 4 or more

8. (i) When did you settle here?.....

ii) From where?

iii) Why?

9. a) Where do you get the water you use from?

- i. Borehole
- ii. River
- iii. Spring
- iv. Water vendors
- v. County connection
- vi. Roof/rain catchment

b) What problems do you encounter when fetching water?

.....

c) What do you suggest as a solution to the above problems?

.....

10. a) what problems do you encounter in transportation?

- a) Inaccessibility Yes No
- b) Narrowed roads Yes No
- c) connectivity Yes No
- d) Others (specify).....

b) What do you suggest as a solution to the above problem?

.....

11. Which method do you use for waste water disposal?

- a) Septic tank
- b) Pit latrine
- c) Municipal/county sewerage disposal
- d) Any other (specify).....

12. (a) How do you dispose your solid waste?

- a) Municipal/county collection
- b) Open dumping/burning
- c) Apply to farm (compost)
- d) Others (specify).....

b) What problems do you face in solid/domestic waste handling/ management?

.....

13(a) Do you encounter any challenges whenever you want to carry out developments?

Yes No

b) If yes, name them.

14. Are you aware of the development control measures that affect Vihiga Town?

Yes No

15(a) Are developments taking place in Vihiga town controlled?

Yes No

b) Do you think development control is helpful in this town?

Yes No

b) Explain your answer.....

16. a) Where do you bury the dead?

a) Homesteads

b) Cremation

c) Cemetery

d) Other specify.....

b). Why.....

17. How can we ensure effective development control in Vihiga Town?

18. What is your vision for Vihiga town?