

## **Factors determining land use development in the unplanned suburbs of Kisumu Municipality, Kenya.**

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### **ABSTRACT**

*The paper demonstrated that land use development in the unplanned suburbs in Kisumu Municipality is dictated by several factors. It covered three unplanned suburbs namely Nyamasaria, Otonglo and Mamboleo based on Mixed Method. The study population was 16250 households from which a sample of 400 household heads was selected. The study aimed at finding out factors determining the development of three major land uses including residential, commercial and industrial. The findings were that land use development in the unplanned suburbs are influenced by; migration, adopted land use planning approach, zoning regulations and bylaws, land title system, actors in land use, legal and administrative constraints. It recommended that Municipal Council of Kisumu should develop some short term measures to guide land use development in the unplanned suburbs including the development and application of proactive planning policies with specific strategies guiding land use development in the unplanned suburbs.*

**Key words:** Land use development, unplanned suburbs, and land use planning, Kisumu.

### **1. INTRODUCTION**

During the industrial revolution, the development of faster transport modes started encouraging decentralization of many of the urban functions and land uses from the central area to the suburbs (Barke, 1986). Initially, the main land use in the suburb was residential but this started changing with time as they expanded. Bertrand (1981) revealed that the expansion of suburbs led to the emergence of commercial and industrial land uses in them challenging the former belief that these land uses decrease from the city centre. Since this period, suburbs have been increasing with time in various cities of the world.

In North America, for example, it is estimated that majority of its cities' residents currently live in the suburbs. Along with the rising population in them, many companies have also located their offices and other facilities in the suburbs (Steil, *et al.*, 2007). This has resulted in increased population density and the continued mix in land uses which again calls for faster and proper planning for orderly land use development.

According to Baldassare (1986), suburbs in developing countries are not well understood and hence are subject to urban biases even in planning for their land use development. The true recognition of suburbs as unique urban human settlement in developing countries is still debatable as they are associated with lower-class family households' residential estates that are developing in an informal manner (Nabavi, 2009). Generally, consideration of their land use development is only made when they are fully recognized by the planning authorities based either on their functionality or negative effect on urban form. The delay to recognize and harness the development of land uses in the unplanned suburbs diminishes the city and municipal councils' ability to handle the situation (Nabavi, 2009; Campbell, 2007). They are therefore characterized by unplanned mixed land uses, poor land use management and lack of proper planning (GOK, 2006a ; Nabutola, 2004). However, there is a need to recognize the fact that successful land use development in the unplanned suburbs is necessary for their survival. This is because the success of the cities relies to a greater extent on the success of its suburbs. It is these suburbs that attract and retain the most sought after economically productive workforce and new commercial nodes (UN-HABITAT, 2001). Hence, the need for proactive planning and development control in order to guide the land use development in them.

In Kenya, the word 'suburb' has been applied in most cases to estates that are emerging as high income residential areas that are located a bit far from the Central Business District but on leasehold titles. These are areas whose land uses are first planned before being settled. They are more pronounced in major cities like Nairobi, Mombasa and Kisumu. However, the ones growing almost at similar distances on freehold titles are termed as informal settlements since their land uses are not controlled. They are mostly considered as peri-urban estates whose land uses are developing in an informal manner and not guided by any planning principles (Wafula, 2004). The land

uses in them therefore develop in unplanned manner. The informal development of land uses in the unplanned manner have been encouraged by: insufficient and outdated zoning regulations; old, conflicting, inconsistent, and complex legal structure; and inefficient, out-dated and complex administrative structure in land management among others as previous studies have shown (Newman and Kenworthy, 1999; Crane, 2000; Saelens *et.al.*, 2003). The other challenge facing land use development in the unplanned suburbs is their location on land far removed from built up areas and the different title systems in them (Kadiri, 2006). For example, in Kenya, it has been observed that the land use development in the suburbs within the leasehold titles are well guided as compared to those growing within the freehold titles. The reason being that development control within the freehold titles has been quite poor, hence, land uses come up in irregular manner.

According to Martens *et al.* (2002), the desired land use developments in the urban areas can only be achieved if there is a definite land use development strategy to be adopted. In cases where there is no proper strategy, the land use developments are prone to sprawl and disorder. Fischel (1989) pointed out that the city and municipal councils also regulates land use development in the suburbs through such strategies as zoning and building regulations in order to gain development controls. However, questions have been raised on the effectiveness of zoning and other forms of land use controls in freehold title areas where in most cases the unplanned suburbs grow (Nabutola, 2004). This is because of the power of private property rights prevail and the public sector influence on land use that seems to be weaker (Farvacque and McAuslan, 1992). The ineffectiveness of the regulations in these areas have lead to such effects like: ribbon development along the main highways and increased development of uncoordinated major employment centers in the suburbs and reduction of property values (Litman, 2009).

In Kisumu Municipality, the three suburbs were found to attract more settlers and development with time but with minimal development control. They are portrayed by unplanned mixed land use development. This type of land use development was found to continue along side the fact that Kisumu municipality have never had any approved land use development plan covering the suburbs. The main objective of this study was to find

out factors contributing to land use development in the unplanned suburbs of Kisumu Municipality. The study examined three unplanned suburbs that are located immediately after the old Municipal boundary and along the three main arterials radiating from the Central Business District (CBD) of Kisumu Municipality. These included Nyamasaria to the East, Mamboleo to the North and Otonglo to the West of the Municipality. The study concentrated on three major land uses including residential, commercial and industrial.

### **1.1 The Study area**

Kisumu Municipality is the third largest town in Kenya and the principal town in the Western part of the country. It stands on the shores of Lake Victoria, the second largest fresh water lake in the world, at an altitude of 1160m above sea level. Kisumu Municipality is situated approximately 00<sup>0</sup>06' South of the Equator and 34<sup>0</sup>45' east of Greenwich. It is connected by rail, road and air to major cities and towns in Kenya like Nairobi, Nakuru, to the east Eldoret to the north east Busia to the West and Kakamega to the North(Figure 1 in illustration and photos).

The town covers an area of approximately 417 Km<sup>2</sup>, of which 35.5% is under water. Similarly, Kisumu also experiences a wide mean annual range of temperatures. It has a maximum annual temperature that range from 25°C to 30°C while the mean annual temperature ranges from 18°C to 20°C (Wera,1981). Kisumu Municipality has been experiencing a more or less steady population increase since 1948. Between the years 1948 to 1969 its population was growing at the rate of 5.7% per annum (Wera, 1981). Between the years 1969 to 1979 the increase was at the rate of approximately 5.0% and by1979 MCK had a population of 152,643. MCK is still experiencing a high rate of population increase estimated to be 2.8% per annum well above the international rate of 1.33%. The total population of the municipality is estimated to be about 500,000 people(GOK, 1999).

In Kisumu Municipality, the suburbs under study are located outside the old town boundary. They suburbs include Otonglo, Mamboleo and Nyamasaria (Figure 2). They are characterized by mainly by residential development with bit of commercial and industrial land uses. Hence, the study only considered residential, commercial and industrial land uses as the major ones in the three unplanned suburbs.

## 2. MATERIALS AND METHODS

The study applied the Mixed Methods Approach since it incorporated the use of qualitative and quantitative methods simultaneously. This approach was found to be relevant in developing the suitable research instruments and in data analysis where one method was used to inform another (Collins et al., 2006). It helped to improve accuracy of findings through convergence and corroboration of results from the different methods. However, the challenges of the Mixed Method Approach are that it requires a researcher to have skills in more than one method and that the finding of one method at times do not corroborate the other (Denscombe, 2007) . However, these challenges were overcome by the researcher's experience in the field of study and careful choice of the methods.

The study involved various sampling techniques, focused group discussions and interviews of the identified key respondents. Multistage Sampling technique was used in order to select the unplanned suburbs and households to interview in them. In stage one cluster sampling was first used to choose clusters (unplanned suburbs) then in stage two simple random sampling was used to select the households in the three unplanned suburbs. These included Otonglo along Kisumu-Busia road, Nyamasaria along Kisumu-Nairobi road and Mamboleo along Kisumu-Kakamega road. The sample frame consisted of all the projected number Households within the study areas according to the Kenya Population Census report of 1999 (GOK, 1999). The total number of the households in the three unplanned suburbs was projected to be 16250 and a sample of 400 done at 95% confidence level represented 2.5% of all the households chosen Table 1.

Table 1: Sample Frame

<b>Suburb</b>	<b>Total No of Households</b>	<b>Selected Households</b>	<b>Percentage</b>
Otonglo	5164	142	35
Nyamasaria	4880	102	26
Mamboleo	6206	156	39
<b>Total</b>	<b>16250</b>	<b>400</b>	<b>100</b>

The following formula was used to determine the sample size:  

$$n = \frac{N}{1 + N(e)^2}$$
 Yamane (1967)

Where  $n$  is the sample size,  $N$  is the population size, and  $e$  is the  $P = .05$  confidence level of precision.

$$n = \frac{16250}{1 + 16250(0.05)^2} = 400$$

The sample size was considered to be representative enough considering the nature of the population and the research question investigated. Each suburb was allocated the number of households based on the population density.

The survey instruments used in the study included study area and land use maps, Focused Group Discussions (FGDs) schedules and questionnaires. Apart from primary data collected from the field using the questionnaires, secondary data was also collected from central government and local authorities' reports and records, internet and other library materials such as books and magazines related to the study topic. Participant observation was also used throughout the study to get some information on the land use development that could not be got from the questionnaires administered to the respondents. Interviews and focus group discussions were used to get clear understanding of the relevant issues on land use development and how it is viewed by the residents. The household questionnaire as quantitative research instrument, was used to build on information obtained from the two qualitative techniques.

The descriptive statistics used in the data analysis included the frequency distribution, percentages and cross tabulations. In order to analyze the land use development in the unplanned suburbs, the tools used included; the zonal plans, part development plans, bylaws and land use regulations. These tools provided information on the types and locations of land uses in the unplanned suburbs. Data has been presented both in statistical and graphical methods. The statistical methods included percentages, frequencies and cross tabulations while the graphical methods included; the figures, tables, pictures, graphs and charts.

### 3. RESULTS AND DISCUSSIONS

The research findings covered Migration, Land use planning Approaches, Zoning regulations and bylaws, Land titles system, Key actors Legal and administrative constraints.

#### 3.1. Migration and Population

The migration pattern examined in this paper referred to the change of the persons' initial place of residence before moving to the current residence. The results in table 2 showed that on average, Mamboleo is leading with new settlers where 50% have lived in the suburb for only one year but have migrated from other estates of Kisumu Municipality. Otonglo suburb seems to have attracted fewer settlers 25% in the past one year but have the majority 42.9% who have lived in the suburb for long. Nyamasaria suburb also attracted 25% of the new settlers in the last one year quite higher 21.4% than those who had settled there before.

Suburb	Previous residence in another estates in Kisumu Municipality		Years Lived in the current Suburb
	Yes	No	
Mamboleo	50.0%	35.7%	< 1 Year
Nyamasaria	25.0%	21.4%	
Otonglo	25.0%	42.9%	
Mamboleo	46.7%	27.3%	1-2 Years
Nyamasaria	20.0%	9.1%	
Otonglo	33.3%	63.6%	
Mamboleo	47.8%	27.8%	3-4 years
Nyamasaria	17.4%	27.8%	
Otonglo	34.8%	44.4%	
Mamboleo	42.9%	26.8%	> 5 Years
Nyamasaria	8.6%	16.1%	
Otonglo	48.6%	57.1%	
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	

Table 2: Suburb Residents' Intra-urban Migration Pattern

Mamboleo suburb was found to have attracted more new settlers ranging from 42.29% to 46.7% for the past five years. It was followed by Otonglo suburb between 33.3% to

48.6% and lastly Nyamasaria suburb with 8.6% to 20.0%. However, Otonglo suburb still leads with 57.1% in the number of residents who have lived in it for more than five years. The high percentage of those who have stayed in the unplanned suburbs for five years and below confirmed that in-migration contributes to their land use development.

The study also examined the household characteristics of the suburb residents in terms of occupation, income and house ownership. The study revealed that in terms of the residents' occupation Otonglo suburb was leading with the number of households in formal sector (54%) followed by Mamboleo 33.7% and Nyamasaria 11.6%. However, on average, almost 50% of households in all the suburbs are employed in the informal sector. The informal sector comprised of retail shops, itinerant trade, groceries, transportation and industrial activities. Occupation was found to have a bearing on the nature of land use development in the suburbs. Informal business has impacted on land use development in the unplanned suburbs in terms of informal housing and business premises.

The study further revealed that there is variations in house ownership against income in all the three suburbs. Results showed that Otonglo suburb had the highest number of low income earners 56.1% with yet has the highest number house owners estimated at 76.2%. On the other hand, Mamboleo leading with the highest number of high income earners 40.7% with 50% owning their own houses while Nyamasaria is characterized mainly by rental housing. The high house ownership in Otonglo corresponds with the results in table 2 which indicated that the suburb had less immigrants compared to other suburbs. It is the suburb that is mostly being settled by the indigenous people on ancestral land. Most of its housing is developed in traditional homesteads that do not follow the laid down building standards.

However, the high house ownership in Mamboleo suburb by the new settlers was attributed to its attraction for the middle and high income group in Kisumu Municipality in search of new homes. While Nyamasaria is attracting the middle and low income groups from such estates like Kondele and Nyalenda who are looking for better housing. The findings differ with some of the previous studies that have shown that intra-urban mobility into the suburbs is due to high cost of land values in the built up areas, however, it corresponds to the fact that some move in search of better housing (Huong *et al.* 2000).

Some of the suburbs new settlers from such estates like Milimani leave well planned and adequately serviced areas to these suburbs that have no necessary infrastructure. However, the findings relate to previous studies that have shown that suburbs are predominantly settled on by middle-class families that have chosen a suburban life regardless of their surroundings (Nabavi 2009). Results from the FGD discussions also revealed that most people move to the unplanned suburbs either in search of better housing or permanent homes for settlement after retirement. This has caused a rush for development in the suburbs like Mamboleo most of which are undertaken without consideration to the planning standards. The mixed income levels and employment types in all the three suburbs were also found to determine the nature of land use development. Since there is poor development control in Kisumu Municipality, the suburbs have therefore adopted the nature of unplanned mixed land use development. These are characterized by ribbon development and mixture of both permanent and semi-permanent housing (Litman 2009; Ewing *et al.*, 2003; Kuzmyak *et al.* 2003).

Land use development in the unplanned suburbs can thereof be associated with migration and population growth. Since the old and new settlers have mixed economic and social backgrounds, the study revealed that they also engage in mixed commercial land use development. The settlers were found to engage in different activities like construction of shops, stalls and kiosks leading to the market area emerging as unplanned CBD that attracts different kinds of economic activities. Due to poor development control in the unplanned suburbs, the land uses within the unplanned suburbs have continued to develop in unplanned manner.

The study also revealed that population growth rate in Kisumu Municipality is estimated at 2.8% while above that of Kenya estimated at 1.33%. It is estimated that approximately 55% of Kisumu Municipality's population has grown due to natural increase while 25% due to rural-urban migration (Oxfam, 2009). The study further revealed that 60% of the Kisumu Municipality residents live within the unplanned zones where the three suburbs fall (UN-HABITAT, 2004). The average density of the unplanned suburbs in Kisumu Municipality is 1306 persons per sq. Km. quite above the overall Kisumu Municipality's density which stands at 846 (GOK, 2009b). The results in Figure 3 showed that the unplanned suburbs in Kisumu Municipality are characterized by

younger age group of which the majority (54.44%) being within 30 to 49 age group and the percentage decreases with the increase age. Nyamasaria suburb has the highest number of the younger population compared to other suburbs, while Otonglo suburb has the highest number of the older people of above 40 years of age.

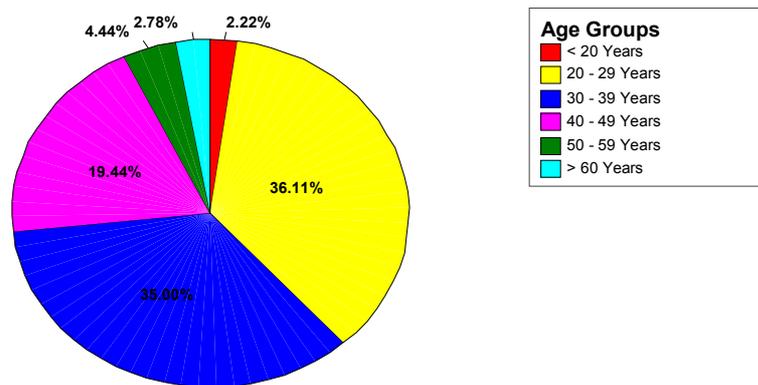


Figure 3: Age of Unplanned Suburb Residents

In general, the study revealed that the suburbs attract a younger and active population of the Kisumu municipality. The findings correspond to previous studies that have shown that suburbs are predominantly settled on by young and middle-class families that have chosen a suburban life regardless of their surroundings (Nabavi 2009). However, this deviates from the suburbs of Britain where young professionals live mostly in the city Centre since it appeals to them (Parkinson *et al.*, 2006). The population formation in the unplanned suburbs coupled with the mixed incomes has encouraged mixed land use developments them. Poor planning approaches adopted and weak development control on the other hand has led to unplanned mixed land use developments in the suburbs. This is evidenced particularly in Nyamasaria suburb where most of the upcoming residential developments that are targeting middle and low income groups have not been approved as confirmed during the focused group discussions.

### 3.2. Land use planning Approaches

One of the land use planning approaches that has been used in Kisumu Municipality is the traditional structure planning. The approach was used to incorporate the three unplanned suburbs to the built up area in the 1983 structure pan prepared by planners from Nairobi (GOK 1983). However, the prepared plan that lacked even the

detailed plans, was not implemented hence did not guide land use development in the unplanned suburbs. Studies have shown that the traditional structure planning approach that has been adopted in Kisumu Municipality covering its suburbs is normally static, technocratic, and ambitious and in most cases provide inefficient and insufficient guidance on land use development for the suburbs (Kisare, 2003).

The other planning approach that was found to have been applied was the market layout plans. Figure 4 in illustrations and photos shows a model of the market layout plan used in all the three suburbs under study. They were characterized by an open air market space and few commercial plots surrounding it. The study revealed that, the parcels of land surrounding the planned market were never planned in advance or later to guide their land use development. Since the planned area acts as commercial nodes, they attract new settlers and developments into the surrounding unplanned areas. According to the Town Clerk, initially these areas were within the jurisdiction of the Kisumu County Council who was mainly concerned with revenue collection from the open air markets and rates from the planned plots. The non-planned plots were identified as 'isolated plots' which the council could only collect rates from according to the owner's wish implying that they were not subjected to any form of development control.

The spatial structures in these areas have therefore taken the form of unplanned mixed land use development where the central areas of the suburbs are planned while the extended areas not planned (UN-HABITAT, 2005). This finding, therefore, confirmed that land use planning as an activity has been undertaken in a piecemeal manner in the unplanned suburbs just as a way of regulating developments in parts of built up areas and not the extended areas. Piece meal land use planning has therefore contributed to unplanned land use development in the suburbs.

The other land use planning approach that has been used in the unplanned suburbs in Kisumu Municipality is that of the preparation of the Part Development Plans (PDPs). According to the District Physical Planning Officer of Kisumu East District, the PDPs should be prepared whenever some portion of land was to be alienated for a specific planned user. The alienation is supposed to be guided by an approved physical development plan for that zone or neighbourhood. He further pointed out that, this changed with time where PDPs were prepared for land allocation purposes particularly in

such suburbs like Mamboleo and Otonglo which had no approved physical development plans. The Director of Town Planning also confirmed this fact stating in his words that; *The PDPs were totally abused by the powerful people in the political circles and you could not offer any professional advice then since people were sharing the 'national cake'. The in thing was the preparation of the PDP followed by plot allocation, subdivision and sale while the planning standards were to be considered later.*

This planning approach greatly contributed to the development of the unplanned land use development in Mamboleo where the government acquired sizeable land for future industrial development. The intended use of the land was altered when this approach was adopted.

The land use planning approaches adopted in Kisumu Municipality were found not to have fully embraced the importance of the residents' participation. Result from the household interviews indicated that on average, only 29% of the respondents have been engaged in land use planning workshops when invited by various professionals or leaders. Nyamasaria residents leads with 34.15% in the level of public participation in land use planning in the Municipality followed by Mamboleo 22.41% and Otonglo 22.22% respectively. Lacks of full involvement of the residents in the land use planning process have also contributed to the nature of land use development in the unplanned suburbs. This is because they do not fully understand or see any benefit from the modern land use administration as implemented by the Kisumu Municipality. In Otonglo suburb for example, one of the FGD participants confirmed lack of understanding on planning requirements by stating in his words said that;

*I cannot understand how the Municipality can force me to build my house and the son's houses as they like. My home was set up according to the Luo traditions and I am still staying in my ancestral land.....what has changed that the Municipal council wants me to live the way they like? I think that if they want us to live that way they should first come and talk to us and we agree.....instead of pushing and punishing us. We did not go to the Municipality; it is the Municipality that forced us into it (An elderly participant in Otonglo).*

Potsiou and Ioannidis (2006) pointed out that this type of scenario make both the state and its citizens become trapped in complex and consistent confrontation. The study

revealed that the existing resistance particularly by indigenous settlers has been used as a cover up even by the informed migrants into the suburbs when carrying out some unplanned land use developments. This is because most of these developments are carried out within the traditional homesteads in the freehold titles whose owners know little about the planning standards. Amler *et al.*, (1999) asserted that the core element in land use planning and development should be the dialogue amongst all participants in order to reach decisions on types and extent of land use. This reduces the possibilities of resistance by the residents and the increase of the unplanned mixed land use developments.

### **3.3. Zoning regulations and bylaws**

The study further revealed that application of the zoning regulations in the unplanned suburbs has contributed to the unplanned land use development challenge in the unplanned suburbs. Little or no zoning regulations seem to be effectively implemented as was observed in the field. Most of the set planning standards were found to be quite high for the residents and hence cannot practically be implemented on the ground to guide land use development in the unplanned suburbs. Figure 6 showed that 70% of the respondents feel that no zoning regulations are respected in all the three unplanned suburbs. However, there is a variation by suburbs where the problem seems to be more critical in Nyamasaria (80%) and Otonglo (79%) followed by Mamboleo (62%). Mamboleo suburb leads with adherence to the planning standards by 38% while Nyamasaria and Otonglo lags behind. The study revealed that Mamboleo leads in following of the standards mainly because its larger portion is within the leasehold title as compared to the two suburbs.

The respondents explained that zoning regulations seems not to be obeyed based on the development trends they see in their neighborhoods. Some of these areas are characterized by mixed ways of constructing bungalows, flats, apartments, condominiums and other forms of housing without order (Plate 1 and 3 in illustrations and photos).

According to Krufft (2001) zoning regulations are land use policies that help to implement community goals and protect their resources while guiding new

developments. Out of FGD participants interviewed in the three unplanned suburbs, 40% were found to have developments in them and out these developments 45% have not been granted any planning permissions. Approximately 50% of the participants who have submitted their building plans to the Kisumu Municipal Council for approvals complained of the delays and deferment of approvals due to the set zoning regulations that they are not even aware of. In his study, Harris (1996) further revealed that there is the imperviousness of land use development to local policies where the local authorities do not have clear land use development strategies being implemented. In such cases, their attempts to control development through policy simply encourage unplanned developments elsewhere. Aruna 2008, points out that this leads to the emergence of a land use development where relationships are not neatly sorted out into homogenous areas but that which is intermingled in a random fashion characterized by the non-conforming uses as was observed in the unplanned suburbs of Kisumu Municipality.

European Commission (2006) emphasized that the set zoning regulations should contribute to a better quality of life and social well-being for citizens while at the same time encourage sustainable land use development. It should be noted that the innovative use of zoning can be a good opportunity to guide land use development even in places having mixed use as in the unplanned suburbs with mixed income groups (Dagny, 2001). However, insufficient, conflicting, inconsistent and outdated zoning regulations leads to unplanned mixed land use development as was observed in the three unplanned suburbs (Potsiou. and Ioannidis, 2006).

### **3.4. Land titles system**

Land title was found to greatly influence the land use development in the unplanned suburbs. The dominant land title in the unplanned suburbs of Kisumu Municipality is the freehold governed mostly by the Registered Land Act (CAP 300) of the laws of Kenya. Freehold title generally guarantees absolute land ownership hence has relationship with the land use in the sense that it encourages subdivision and sale of land without proper consideration to planning standards (Robert, 2002; Migot-Adholla *et al.*, 1991). Results from FGDs showed that 70% of the FGD participants in the three suburbs who had transacted on land acknowledged that the key factor is willingness to buy or sell

land and its price. It is only in Mamboleo 44% and Nyamasaria 30% where planning standards are considered when buying land. However, the willingness and price of land dictates purchase in all the three suburbs as with Otonglo leading at 87% followed by Mamboleo 67% and Nyamasaria 60% respectively. The price of land was found to act as a sorting mechanism to determine the type and location of development whether it is residential, commercial or industrial. The FGD participants stated that in most cases they are willing to pay for land up to the amount they anticipate they will receive its future benefits. It was noted during the discussions that some consider the benefit of certain locations more than others and hence tend to buy them at any cost irrespective of their value. It was interesting to note from the results that the proposed development ranked lowest a sign that land use regulations do not fully apply within these suburbs.

According to Farvacque *and* McAuslan (1992), in postcolonial Africa, the legal distinctions between freehold, trust and government titles have contributed to the creation of conditions suitable for unplanned settlements. This is because the land owners generally develop them with minimal restriction and with a feeling that they have no policy controlling the nature of developments they undertake. For example, the study revealed that the freehold land title system has contributed to the uneconomical subdivision of land in the three unplanned suburbs. Njuki, 2001; Farvacque *and* McAuslan 1992 confirmed that uneconomical subdivision of land is common within freehold title particularly in parts of urban areas where there is no strict development control like the ones in the unplanned suburbs of Kisumu Municipality. However, Enemark, 2010 pointed out that the systems of land title and land value can lead to effective land-use management only if it is supported by efficient land-use control. The land title system has therefore greatly contributed to the land use development in the unplanned suburbs in uncontrolled manner since land owners subdivide and sell them without considering the planning standards (Enemark, 2010; Olima, *et al.* 1991).

### **3.5. Key actors**

The data gathered from the Focused Group Discussions and key informants revealed that there are roles played by different actors in the unplanned suburbs of Kisumu Municipality that influences the nature of land use development in them. These included the businessmen, industrialists, households, land owners, the developers, the Municipal council staff and the land use professionals. These actors were found to develop industries, both commercial and residential houses, *kioks*, stalls, bicycle repairs, black smiths and motor garages among others in unplanned manner (Plate 2 and 4 in illustrations and photos).

They also were also found to undertake their developments at locations that they felt had maximum profit but not on land use planning basis. For example in Mamboleo suburb, some have constructed residential houses next to the quarries to provide housing to the workers irrespective of the two users' incompatibility (Plate 5 in illustrations and photos). Focused group Discussions revealed that the role of some quack land use management professionals also contribute to the nature of land sue development in the unplanned suburbs. Nabavi 2009; Potsiou and Ioannidis, 2006 confirmed this finding that developers sometimes hire the services of some quack professionals in order to make profit by subdividing or consolidating land and constructing buildings that satisfy their needs regardless of the planning standards.

The study further revealed that Municipal Council of Kisumu has not been proactive in the preparation of plans and policies to guide land use development in the suburbs for the last twenty years. On the other hand, the land use professionals, have also not fully assisted in promoting orderly developments in the unplanned suburbs. This is because they sometimes aid the developers in getting the approvals for developments that are below standards either through negligence or other forms of influence. Njuki, 2001 pointed out that, the land surveyors for example, have been mainly engaged in measurement of land being subdivided without bringing in the aspect of land use planning in their profession leading to uneconomical subdivision of land. The District Physical Planning Officer of Kisumu East District also pointed out that, even, some planners in practice have also been forwarding substandard subdivision scheme plans and planning reports that do not reflect the real situation on the ground. According to Home

(2000), these types of actions normally create unplanned and haphazard land use developments that make it difficult to provide even the necessary infrastructure as was observed in the study.

### **3.6. Legal and administrative constraints**

The study revealed that legal and administrative Constraints also contribute to irregular land use development in the unplanned suburbs. The statutes that govern urban land use planning in Kisumu Municipality include Physical planning Act CAP 286, Local Government Act Cap. 265, Government Lands Act Cap. 280, Land Control Act Cap. 302, the Land Acquisition Act Cap 295 and the registered Land Act Cap. 300. These statutes were found not to be fully applied in the unplanned suburbs. Ward *et al.* (2007) pointed out that lack of full utilization of the statutes in a view of achieving orderly development results into unplanned land use developments as currently experienced in the Kisumu Municipality. It was found out that partial applications of the statutes have contributed to uneconomical land subdivisions and development of incompatible land uses within the unplanned suburbs (GOK, 2009). Previous studies have shown that some of the obstacles to proper land use development in the urban areas include: lack of shared statutes, autonomy and staff capacity and gaps in land use planning policy formulation by the agencies (Fischel, 1989; Ward *et al.* 2007; Duong, 2003). This was found to contribute largely to the uncoordinated land use developments particularly in the unplanned suburbs of Kisumu Municipality.

### **Conclusion and Recommendation**

The growth of the unplanned suburbs with uncontrolled land use development in them is still a challenge in most municipalities of developing countries. This was the first study on unplanned suburbs in Kisumu Municipality. Its findings demonstrated that land use development in the unplanned of the Municipality is dictated in migration of younger and active population, application of old planning approaches and land titling system and key actors in land development. Despite the fact that some of these factors are known to the planning authorities as contributing to unplanned mixed land use development in the suburbs, little has been done to tackle them. The findings of this study contributed a good

database that the planning authorities can utilize to develop some short term measures to guide land use development in the unplanned suburbs in Kisumu Municipality.

It is recommended in the study that Municipal Council of Kisumu should develop and adopt proactive planning policies with specific strategies that can guide land use development in the unplanned suburbs. Further studies should also be conducted on various land use development factors highlighted in this study including suitable land use planning approaches, housing situation with related infrastructure and stakeholder approaches to suburb planning.

### **ACKNOWLEDGEMENTS**

I would like to convey my sincere thanks to all those who in one way or another assisted me in conducting the study. My special thanks go to my supervisors for the constructive comments and guidance they gave throughout the writing of this paper. I am also grateful to Higher Education Loans Board for the loan that helped me in data collection and analysis. Special thanks also go to the suburb residents, Ministry of Lands and Municipal Council of Kisumu's staff for their willingness to avail the necessary data required for the study.

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**ILLUSTRATIONS AND PHOTOGRAPHS**



Figure 1: Kisumu Municipality in the National Context

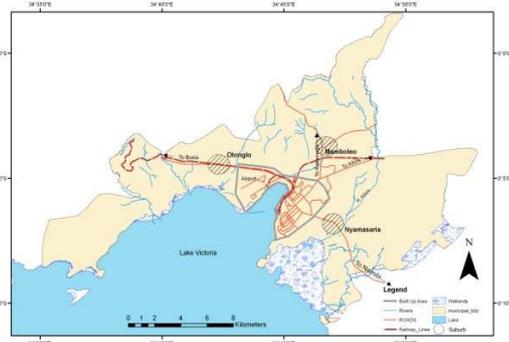


Figure 2: Study Area Location

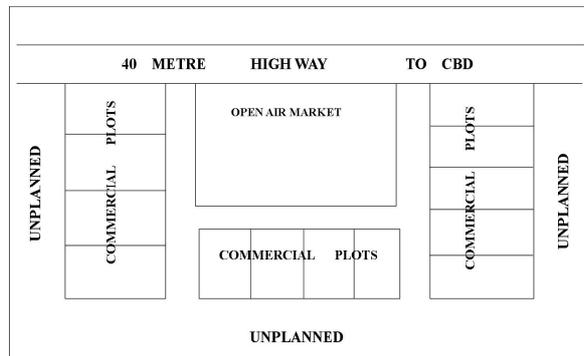


Figure 4: Model of Market Layout Plan



Plate 1: Permanent and Semi-Permanent Housing in Nyamasaria



Plate 2: Stalls and informal developments in Mamboleo



Plate 3: Types of Housing in Otonglo Suburb



Plate 4: Small Scale businesses along streets



Plate 5: Residential developments near Ndugu quarry fence in Mamboleo