Land Tenure Systems in Kisumu City; The Formal-Informal Dichotomy

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Abstract: In the process of urbanization, the peri-urban areas are often the front line of urban transformation and transition and therefore potential zones of conflicts over land tenure arrangements. This study sought to explore land tenure arrangements, administration and governance in the peri-urban zones of Kisumu city. The objective was to provide empirical evidence on the conflicts and emerging governance issues in Kisumu city. In this working paper, we recognize three main drivers as being particularly important for facilitating equitable land use and therefore good outcomes from urbanization in Kisumu; Sound land use planning, smoothly functioning land and housing markets and capable and responsive land market. The results, based on the insights gained through conversational interviews as well as desk-top reviews show that public land tenure, leaseholds, freeholds and community land tenure systems are the most widespread in the study area. Holding land under leasehold and freehold tenure appears to be more widespread within peri-urban fringe. Whereas elaborate town planning criteria should ideally direct resource allocation, the challenge for Kisumu like other developing towns and cities is that it has been developing against a backdrop of poor urban planning practice.

Keywords: Land tenure, Tenure security, Land use, Informality

I.   INTRODUCTION

The 21st century urban space and time is being shaped by dynamic forces of urbanization- that is occurring both formally and informally (UN-Habitat, 2014). However, informality development forces have often outpaced the formal urban development forces and has been recognized as principal *"mode of urbanization"* in the third world countries (Roy, 2005). In developing countries like Kenya, the rapid rate of urbanization have far exceeded the capacity of national and county governments to manage urban growth leading to an "urban crisis". This crisis has manifested itself in uncontrolled expansion or urban sprawl that is accompanied by the growth of informal settlements, deterioration of the quality of urban life especially for the low-income cohorts and diminishing employment opportunities among others.

The degeneration and densification of both formal and informal city neighborhoods is fueling the proliferation of informal settlements and is viewed as resulting from widespread dysfunctional formal land market systems. Fecade, (2000) posit that city authorities have consistently failed to supply developable land at affordable prices to majority urban poor populace. In essence, proliferation of these settlements to a large extent, symbolize the systemic failure of the urban land use planning process and land registration systems existing in many African cities.

The rapid urbanization being experienced in Kisumu city continue to affect prevailing land use and land tenure systems. The tremendous growth being experienced especially in the urban fringe zones has to a larger extent overwhelmed the formal planning system capacity in providing serviced land and plots for development. This among other factors has made informality the major driving force shaping urban growth in fringe zones of the city. Most of the informal neighborhoods that continue to proliferate are characterized by informal building activity that has insecure tenure. The demand for land is further driven by the efforts of low-income households to secure land that is affordable. The urbanization process is largely informal due to the weak statutory urban land use planning framework observed in Kisumu city. The weak

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government control has exacerbated informality leading to mushrooming of slums, growth of squatter and informal settlements in the peri-urban zones and in the process engulfing surrounding rural hinterlands. The emerging informal settlement are developing without any official planning since they are not supported or guided by any regulatory frameworks.

The rapid urban growth against the backdrop of weak urban land use planning and policy have resulted in huge infrastructure deficit and basic services. This has put a lot of population pressures on land tenure systems. In the peri-urban zones of many cities, there is an upsurge in the demand for more land for building. .As land parcels become smaller and smaller due to subdivisions, communities have been pushed to subdivide rural hinterlands originally preserved as communal land. Change from communal to individual tenure systems has resulted into further pressure exerted on urban fringe land. This pressure on land has also led to legal and illegal annexation of public space, forestland and water catchments lands.

In Kisumu city, land use planning and governance continue to be guided by urban planners who come from the school of thought that is more inclined towards rational choice decision models adopted from colonial town planning. This reason, among others can be attributed to many urban problems the city is facing. Indeed, Kisumu city governance inefficiency is epitomized by myriad of failures and deficiencies including; socio-spatial segregation, gentrification, high density informal settlements, high magnitude of urban poverty, environmental pollution and urban sprawl.

II. METHODOLOGY

The study employed a combination of qualitative and quantitative methods. Conversational interviews were conducted with different types of actors holding access to land in order to explore the relationships between (i) holding land under specific tenure forms, (ii) the perceived level of tenure security, (iii) the efforts made to increase tenure security and (iv) the ways in which such tenure-related features influence economic behavior in terms of investment on land. Key informant Interviews were conducted with officials from Kisumu city management, Kisumu city planning office, Kisumu county government, local administration such as chiefs and sub chiefs, village level institutions such as community based organizations, Faith based organizations, among others.

III. RESULTS AND DISCUSSIONS

A. Land tenure and tenure security systems in urban landscapes

In urban planning process, the management of land can play an important role in providing conditions for maximizing the potential for a beneficial process of urbanization and minimizing the negative impacts on the majority urban poor and vulnerable. If managed poorly, processes of administrative reconfiguration and settlement of incoming urban migrants can heighten tension, leading to violence and destabilization. On the other hand, where good management exists, this can facilitate efficient urbanization as land can be made available at affordable costs, facilitating low cost housing and minimizing displacement of households and economic activities (UN-Habitat 2014). Additionally, effective stewardship of land is necessary to provide the formal utilities, infrastructure and public bulk services (Manuel and Calderon, 2015) that underpin inclusive and growth-enhancing urbanizations.

Land tenure spells out guidelines on how land rights are held in a society. These land rights can be in held in terms of grants, gifts, sales and the use of land under certain obligation. Payne (2002a), elaborates land tenure as the terms and conditions under which access to land rights are acquired, retained, used, disposed of or transmitted by people, either individually or as groups within a given society. Simply stated, Owusu and Agyei (2007) define land tenure as the mode of holding rights to land. Wallace et al., (2006) sums up land tenure as a "dynamic network of hierarchy of property interests in land, rights, restrictions and responsibilities and powers as stipulated in the jurisdiction". The networks implies that there exist multiple rights associated with land and the natural resources under it. UN-Habitat (2003) view security of tenure as the proportion of households with formal title deeds to both land and property or proportion of household with any document of proof of a tenure arrangement.

Midheme, (2007) identifies two principal types of land tenure systems that include customary tenure (traditional or communal land tenure) and statutory (based on law) upon which rights attached to land are derived. Under customary tenure, the mode of holding rights in the land exist through customs and traditions (Kalabamu, 2000 as quoted in Okonyo, 2008). Key characteristics of customary tenure includes; land is not subject individual ownership although the rights can be sold or transferred between members of the community (Agbosu, 2000); any person has the individual right of occupation and use of land "the right of avail" (Kalabamu, 2000); the rules governing the acquisition of property rights (though not written) are usually generally known by members of the community (Bentsi-Enchill, 1964

quoted by Okonyo in 2008). Another characteristics is that elders or tribal chiefs in a community are bestowed with authority over the allocation of land rights (Ogolla and Mugabe, 1996). Under statutory land tenure (also referred as private), Okonyo (2008) states that an individual has sole (and absolute) rights of ownership to the land or property. These rights includes both the free hold and leased hold tenure. Within private land tenure systems, the rights are defined by jurisprudence (law) and supported by legalized documentary evidence like the title deed. These land/property rights gives the holder's unobstructed exchange/disposal of land and property rights to willing seller.

However, with urbanization phenomena being experienced world over, Fitzpatrick (2005) says that land tenure types has also evolved and expanded both on spatial-temporal dimensions. These dimension can be observed from the resultant urban growth dynamisms such as urban sprawl, unplanned urban expansions, compacting and densification and mixed land uses. Apart from the two mentioned above, Dale & McLaughlin, (1999) adds other land tenure types that include;

- Private: where the individuals have rights of ownership, tempered by responsibilities and regulations placed by the state or by other third parties‖
- Public/Open Access: where there is no defined group of owners, the benefits are available to anyone and there are no duties or obligations"
- State: where the government set apart a property for public use. The public agencies bestowed with the authority to manage set rules for access and use of property.
- Communal: under communal tenure, the aggregate body has ownership of the whole and rights to exclude non-members; Individual members of the body have both rights and duties with respect to the use and maintenance of the property.
- Extra Legal: this implies "not against the law", but not recognized by the law. This type of tenure exists in many indigenous communities.

The rights attached to land/ property can further be defined with regard to the type of transactions and length of time that the rights are legitimate. These include: - (i) Freehold: This is the highest form of ownership which describes the complete bundle of rights that can be held privately at any point in time". Dale & McLaughlin, (1999) points out that freehold owners have unrestricted rights to dispose of their land through inheritance or sale as long as those transactions conform to existing jurisprudence. (ii) Leasehold: here, an individual is granted user and occupancy rights of a

property for a specified period but subject to renewal upon expiry period of the lease. From both statutory and customary land tenure systems, FAO (2002), identifies three rights attached to land that a person may hold to include: - (i) use rights: ―rights to use the land; (ii) control rights: ―rights to make decisions how the land should be used and (iii) transfer rights: ―right to sell, convey, transmit, mortgage or reallocate use and control rights of the land.

B. Forces shaping the formal - informal urbanization dichotomy

Third world cities continue to grapple with weak, uncoordinated, non-functional and mostly archaic urban land management and governance systems. The increasing demand for land outside of formal government legal mechanism gives rise to informal land market systems that compete with the formal market. But due to the vibrancy of informal economy in many African cities, the informal land markets outpace the formal systems and thrive often with detrimental consequences to the desired urban land use. According to Hall and Pfeiffer (2000), the discourse of informality has shifted from a formal-informal dichotomy to a formal-informal continuum (Roy and Alsayyad, 2004; as cited by Hill & Lindner, 2006). It is to be noted that formality and informality is not categorized based on individual but the enterprise with the poor, the middle income and the rich having significant influence over informality development.

Land and property tenure security supports vibrant land markets which are transparent. However, under informality, most land market transactions are largely informal, and illegal in government view. The conversion of land from formal-to-informal type by "illegal settlers" is as a result of inadequate, non-functional or to a large extent non-existence land use planning and related regulations (Roy, 2005).

Driving forces shaping urban informality are manifold and can be attributed to myriad of factors among them weak planning policies and regulations, rural urban migration, gentrification, rapid urbanization, poor urban land governance among others. According to Roy (2005), informality to an extent is more of a state production rather than result of state regulations. Gentrification which Vandergrift (2006) views as a synonyms to displacement has been identified as a key force that displace the urban poor and consequently resulting in informal settlements proliferation (Roy, 2005; Powell & Spenser, 2002; Porter, 2010). Ambaye, (2011) further alludes that the resultant state of rural urban migration is causing proliferation of informal settlements (Figure 1).

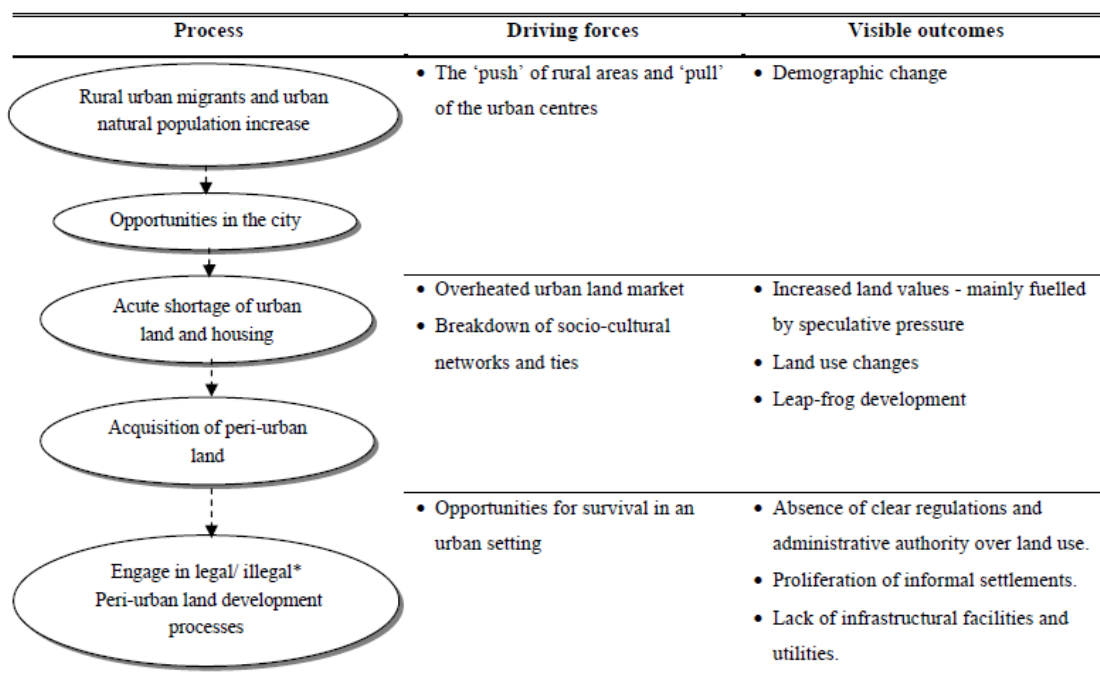| Process	Driving forces	Visible outcomes
Rural urban migrants and urban natural population increase	• The 'push' of rural areas and 'pull' of the urban centres	• Demographic change
Opportunities in the city		
Acute shortage of urban land and housing	• Overheated urban land market • Breakdown of socio-cultural networks and ties	• Increased land values - mainly fuelled by speculative pressure • Land use changes • Leap-frog development
Acquisition of peri-urban land		
Engage in legal/ illegal* Peri-urban land development processes	• Opportunities for survival in an urban setting	• Absence of clear regulations and administrative authority over land use. • Proliferation of informal settlements. • Lack of infrastructural facilities and utilities.

Fig. 1. The urbanization process and the resultant changes in land tenure and land use

Under informality, there has emerged an alternative 'informal mode' of (re) producing and appropriating urban land for settlement (Fekade, 2000) to those who cannot afford the formal and often bureaucratic formal way of land acquisition. This mode is steadily growing due to weak policy and enforcement mechanism on the side of city government. In some cities, where enforcement influence is weak, the authorities have on some cases been accepting informal transaction (Scholz, 2008). As may be expected, the resulting land uses produced are varied, not just in their spatial scale and function, but also in their degree of formality. While government authorities response to such have initially been to wipe out these 'unsightly development' from the city landscapes (Fekade, 2000; UNDP, 2005), attitudes have since changed towards accommodation and a number of informal settlements have since undergone upgrading (Abbott, 2002a, 2002b). However, the successes of such upgrading are difficult to quantify.

The growth of urban informality can be traced from the origin of informal settlement. According to Agnihotri, (1994), the development phases of informal settlements include formation of various nuclei, expansion of older nuclei and intensification of the oldest. The development phases start with vacant land infancy, by one building, which multiplies, expands, consolidates and reaches a maturity (Figure 2)

C. Urban planning theories shaping land use planning in Kenya

Urban land use planning in Kenya has is more inclined to theoretical kind of planning anchored under rational thinking. Urban planning in Kenya has relied on the conventional urban planning like blue print planning, master planning, statutory planning, and rational planning in making land use planning decisions. Conventional urban planning is deeply rooted in rational planning theories of 19th century thinkers which heavily relied on rational decision making models (Silva 2013). The prescribed norm in this approach is based on instrumental rationality (Bajec, 2009) where professional planners rely on scientific knowledge and iterative processes where land use planners follows prescribed pattern of problem solving behavior that are modeled in a "orderly and linear process (Feiock, 2004; Cocklin 2005) to prescribe solutions. The planning process under this model is hinged on an iterative process that start from 'problem-gathering' to 'information-synthesize' to 'identification of alternative courses of action' to 'creation of systems for implementation". Such rational models are tightly connected with state- based interventions (Bajec, 2009), that has been known to create hierarchical and bureaucratic routine enclave that make for slow inflexible working.

Many urban scholars have criticized this theory of urban governance that puts too much emphasis on individual

agency and 'experts' in the planning process at the expense of urban majority. According to Rittel (1973), planning problems are inherently wicked and rationality theory cannot be used to solve problems of open societal systems. The believe that reality has fundamentally a logical configuration is not true. This implies that the true nature of urban problem is not understood in rational planning hence wrong solutions to complex urban problems are more often than not prescribed by planners.

The colonial urban planning discourse still perpetuated by urban planners in Kenya today were dominated by rational thinking colonialists who viewed ordinary citizens as subjects who must follow imposed technocrat-based solution of urban problems. Consequently city regulations, polices and laws do not always succeed. Ultimately, the burden for addressing holistic issues has been entrusted to few clique of urban planners and technocrats who often come up with ad hoc interventions often with detrimental consequences. To a larger extent, urban planning is reduced to routine implementation of prescribed policies and programmes copied wholesomely from colonialist town planning manuals- with often disastrous consequences.

D. Land use planning and land tenure systems in Kisumu city

The challenge for Kisumu like other developing cities is that it has been developing against a backdrop of poor urban planning practice. Land use development plans to a larger extent influence the patterns of urban development, ensure compatible land use and guide land development (UN-Habitat, 2009). The responsibility of preparing strategic, local development, zoning plans and policies for upgrading, and development control are to a greater extent bestowed to the urban planners (KCC, 2009). However, according to a report prepared by UN-Habitat (2008) urban planning department in the county government lacks mechanism to monitor urban land use and growth.

Kisumu urbanization problems are perpetuated by misguided spatial planning approaches, weak planning polices and weak implementation. They are exacerbated by weak urban institutional frameworks. Perpetuation of rational planning models can be deciphered from the city administration structure that is characterized by top-down authoritarian systems with rigid hierarchal structures (Mwenda, 2010; UN-Habitat, 2008).

Land tenure systems in Kisumu is mainly free hold putting the responsibility on the pattern of development to the owners of the land. Based on the insights gained through conversational interviews as well as through the desktop reviews; public land tenure, leaseholds, freeholds and community land tenure systems are the most widespread in Kisumu. In the peri-urban zones freehold and communal land tenure holding appears to be more widespread. With the rising demand for housing, coupled with limited city growth space private developers acquire land for housing with little consideration of the physical planning regulations. This is the main reason why the CBD of Kisumu town is surrounded by a ring of informal settlements stretching to about 23.3 km2.

Residential developments are jumping the informal settlement ring and are being put up within the urban fringe lands lacking basic infrastructure. This can be attributed to why a large proportion - approximately 60% of the urban population resident in the peri-urban and informal settlements lack basic services. Again, approximately 75% of the peri-urban inhabitants are living in temporary and semi-permanent structures (Physical-Planning-Department, 2009).

Spatial plans for Kisumu city were first developed in 1899, 1900 and 1902. These plans delineated zones for various land use developments in the new township. The new town was essentially planned as a garden city with low densities in the European areas, extensive intra - urban distances, large housing plots and lavish recreational spaces. The central part of the town was and still is made up of Government offices, port and industrial area, housing the middle and high income residential neighborhoods in a well-planned area. Before the boundary extensions of the early 1970s, the original municipal areas were well planned with services and infrastructure provision. The Kenya Railways as the pioneer parastatal had vast tracks of land. Substantial areas were reserved for the new commercial district and Government functions including staff residences.

After the 1971 Kisumu city boundary extension that annexed the immediate peri-urban area outside the old municipality and the rural urban migrants into the city, there was a sharp increase in the city population as can be seen from the table below. To date, the city continue to experience sustained population increase and according to UN-Habitat (2005), its ranked as one of the fastest growing cities in Kenya with an urban growth rate estimated at 2.8% p.a. in contrast, the wider Kisumu region is ranked among the poorer regions in Kenya with an average poverty index of 48% against a national average of 29% (UN-Habitat, 2005).

Table 1: Population growth trend of Kisumu city (1948 -2009)

Census Year	Population	Decadal Change	Growth Rate (%)
1959	23,526		
1969	32,431	8,905	**37.9** %
1979	152,643	120,212	**370.7** %
1989	255,381	102,738	**67.3** %
1999	345,312	89,931	**35.2** %
2009	618,556	273,244	**79.15** %

Source: KNBS 2009 population census

E. Tenure security status in the informal peri-urban zones of Kisumu city

In 1969 when the first physical development plan of Kisumu city was prepared, it covered an area of 19.8km2. However, in 1971, the government annexed about 10.54km2 of land for city expansion from the peri-urban zones that were predominantly rural in character. The annexed land was never planned and urbanization that continue to occur there is largely informal in character. This informality development has transformed rural village dwellings into urban settlements but without basic amenities and infrastructure that comes with formally planned land use.

Most of this peri-urban land in Kisumu do not have tenure security since it was communally owned. As a consequence, informal squatter settlements and illegal subdivisions occurring in both public and private land have mushroomed in magnitude forming a continuum belt of informality surrounding the formally planned city land surrounding the CBD. This informal belt of Kisumu has seven informal settlements namely; Manyatta A, Manyatta B, Nyalenda B, Bandani, Obunga, Nyamasaria and Kaloleni. The informal settlements growth has continued to grow outward from the initial CBD as illustrated in the maps below.
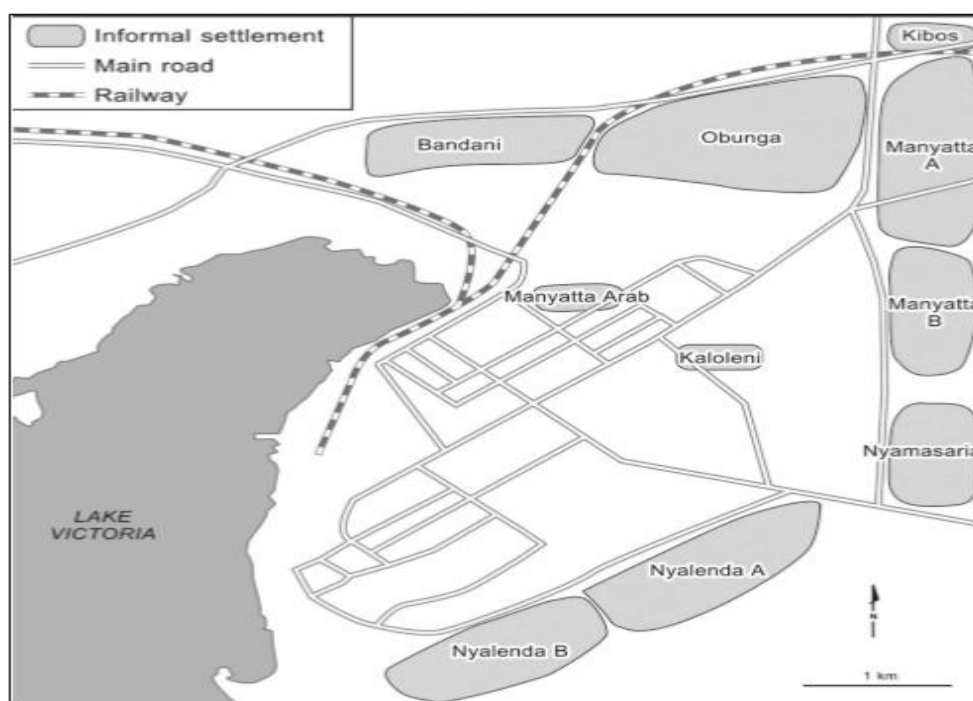
Map 1: Location of informal settlement in Kisumu city' peri-urban fringe

The informal settlements in Kisumu city are surrounded by rural hinterland that was incorporated into expanded town boundary (UN-Habitat, 2005). This land provides avenue for informal settlement extension as land owners change use to lucrative provision of cheap informal settlements houses. Urban sprawl goes hand in hand with informal settlement formation. Citing the example of Mexico where polycentric development occurred as a result of urban expansion, Roy, (2005) says that informality normally occurs in the rural/urban interfaces. The rural/urban interface has also become the attraction for the rich to construct informal housing (Roy, 2005) but with secured tenure and acceptance by the government unlike the informal settlements of the

poor. Studies has shown correlation between the poor and the rich where the poor have tendency to follow the rich due to availability of manual jobs. As the rich moves outward, the poor also move thereby creating urban sprawls and encroachments of the rural hinter land.

Within the eight informal settlement of Kisumu, there is high degree of overcrowding with approximately 150 housing units per hectare which are temporary and semi-permanent in nature (KCC, 2009). This is pushing the middle class and the rich who feels choked by the overcrowding to the peri-urban areas in search for space and well planned areas. Again, according to Kisumu Physical Planning Department records (2009), problems of inadequate shelter is very high with approximately 75% of the peri-urban inhabitants live in temporary and semi-permanent structures. Approximately 60% of the urban population in the peri-urban and informal settlements of Kisumu lack basic services.

Table 1: Land ownership status and basic facilities in eight Informal settlement of Kisumu in 2010

Kisumu's slum settlements	% of HH without land ownership	% of HH with water	% of HH with toilet	% of HH with electricity
Bandani	74.2	2.9	47.6	2.3
Kaloleni	42	18.1	80.3	30.8
Manyatta A	81.3	22.4	57.6	24.9
Manyatta Arab	96.3	4.8	18	6.4
Manyatta B	63.6	10.3	65.9	10.1
Nyalenda	68.2	26.4	57.5	15.6
Nyawita	57.1	6.1	66.1	29.8
Obunga	80.5	2.3	12.3	2

Source: Pamoja Trust data

Poor urban land use planning standards, poor housing typologies, inadequate infrastructure and services are some of the major factors that have led to the development of these dwellings. In summary, most of these unplanned informal settlements of Kisumu city are characterized by; substandard housing characterized by illegal and inadequate building structures, lack of land tenure security, lack of physical planning and basic principles of spatial planning, poor structural quality of housing, lack of basic housing facilities such as toilet and kitchen, lack of sewage system, lack of tap water and irregular urban structure among others.

F.   Towards provision of secure tenure through regularization of informality in Kisumu

Providing the urban poor with land rights and secure tenure is a primary means of alleviating poverty and empowerment in urban informal areas (Bouquet, 2009). Indeed the paramount aim of establishing an efficient land registration that provide for tenure security is to contribute towards economic growth by ensuring that the rights holder can use land and property therein as collateral to secure funds. As Deininger (2003) notes, secure land tenure also simplifies land transaction often at low costs thereby improving the vibrancy of the formal land markets while at the same time killing or suppressing the illegal/informal land market systems existing in urban areas.

Regularization of informal settlements requires different policy and practices (Kahuri, 2010). Roy, (2005) states that informality can be legalized not only through bureaucratic processes but also through the political intervention. Regularization is the process of formalization of property rights (Kahuri, 2010) that entails identifying interests, adjudicating and registering them leading to the issuance of a title or deed (Meinzen-Dick and Mwangi 2009). When informal settlers are given land tenure rights over government land, it is undertaken as a welfare measure.

In the past, many countries policy was inclined towards demolition over regularization as measure to remove informal settlements (Ambaye, 2011). However, these technocratic approaches have been largely ineffective in dealing with the challenges of informal urbanization. Many government official response to urban informality especially so in the developing countries was characterized either by inaction, inappropriate action, or insufficient action (UNDP 2005). In such cases, the informal sector responded to lack of basic infrastructure by converting it into a market opportunity, even for infrastructure needs such as water, electricity and toilets (Srinivas, 2010).

Over time, the measure to tackle informality has changed with innovative and preventive practices (Ambaye, 2011) being undertaken by various cities around the world. In response to the economic crises of 80's, many countries resorted to neo liberal system thereby encouraging self-help housing, privatization of small enterprises and community proposals (Roy, 2005; Biles, 2008; Huchzermeyer, 2008 & Ambaye, 2011). In the mid 90's, the measures to tackle informal settlements transformed from relocation and eradication to upgradation (Roy, 2005). Roy cites the example of

"favela program of Brazil" where the informal settlements were transformed into formal settlements by upgrading the physical infrastructure. The upgrading program included the issuance of property titles to the informal settlers thereby securing tenure of the land and houses (Magalhaes & Eduardo, 2007).

Later in mid-2000, the approaches to regularization of the informal settlements took a path forward towards integration of informal settlements in urban planning (Tsenkova, 2012). For example in India, during the preparation of the local area plan mostly using Land Pooling/ Land Readjustment, the government is mandated to spare certain portion of land for the accommodation of urban poor (Ballaney, 2008; Ballaney & Patel, 2009).

In addressing informality problem in Kisumu, the government of Kenya initiated two projects to upgrade informal settlements in 2004 and 2011 by the name "Kenya Slum Upgrading Programme (KENSUP) and the "Kenya Informal Settlement Improvement Project (KISIP)" respectively (Muraguri, 2012). Under the Kenya Slum Upgrading programme, Kisumu city' informal settlements were among the first group selected to pilot the global "Cities without slums" initiative (UN-Habitat, 2005). The programme reviewed the scenarios that contributed to the high growth of the informal settlements with an aim of developing an action plan that identified issues and situations that was to guide slum upgrading efforts. The UN-Habitat urban management programme for the Lake region also helped in developing a City Development Strategy including an action plan for Kisumu. In conjunction with Pamoja trust – a Non-Governmental organization, the UN-Habitat and KENSUP conducted a door to door socioeconomic survey of the slum dwellers. This information would then help in the slum upgrading processes.

The projects were slowed down by court cases and it faced numerous challenges such as arrangement of land tenures, conflicts between land owners and the tenants, conflict of interest, inadequate land among others (Muraguri, 2012). Again, the upgrading process was largely centralized, which contributed to cyclic failures of the interventions. The contemporary planning approach of informal settlement upgrading often fails to accommodate the way of life of the majority inhabitants in informal areas, thereby contributing to social and spatial marginalization or exclusion. Urban planners fail to see the need to involve communities in the upgrading and planning process.

G. Challenges of securing tenure through land regularization in informal settlements

Though the intention of regularization process is provide tenure security thereby improving the livelihood of inhabitants of these settlements, often at times negative impacts have been reported.

Ideally, tenure rights should be realized during the regularization or upgrading process of informal settlements thereby leading to enhanced perceptions of tenure security and empowerment of the informal settlers. However, empirical evidence indicates even though this may be achieved, the process of informal regularization has had both positive and negative effects. According to Feder and Nishio (1998), land registration systems and titles deeds have been used by government as legal tools to address tenure insecurity and also as land transaction evidence (Zevenbergen 1999). However, Kahuri (2010) notes that "land rights delivery through titles has not always been beneficial especially to the very needy". This she attribute to lack of an integrated approach which embraces all actors concerned with land matters. Though land tenure is expected increase tenure security (Satterthwaite, 2009), Van Gelder (2007) observes that having a title deed does not necessarily confer feelings of security. An observation made by International Federation of surveyors (2010) is that mostly under informality conditions, security of tenure is rather complex and different from that of free hold.

Even with tenure security and proper legal documentations, secure tenure is never guaranteed especially in the informal areas due to threats from other inhabitants. Due to dysfunctional land information and adjudication process existing in the informal areas, illegal cartels tend to thrive and a vibrant informal land markets emerge. Operatives in these cartels have in some cases colluded with land registration officials to tamper and change legal tenure documentations for some citizens who own strategically located plots in the informal areas. This has led to threats, evictions or expropriation of land for some citizens despite their guaranteed tenure security status.

According to Kahuri (2010), regularization and the titling process have had unintended consequence of loss of means to livelihood to many urban poor especially women. Roy, (2005) cite some challenges of regularization to include gentrification thus displacement of the poor, creation of unaffordable land market and increase in inequality. In addition, introduction of exploitive landlord/broker-tenant relationships has been recorded in upgraded informal settlements (Durand-Lasserve and Royston 2002). Regularization has further been perceived to give

impunity to all laws of urban development (Kahuri, 2010). As a result, illegal activities sprout up contributing towards environmental degradation such as pollution. Again, the value of land in most upgraded areas go up and most families find themselves unable to afford the houses and move out and squat either in the periphery of the upgraded informal settlement or in public open spaces. Augustinus (2003) adds that "regularization and the provision of freehold to the informal sector has been reported to encourage more squatters to start new settlements in the hope of one day gaining access to formalization".

H. Providing public infrastructure and services under insecure tenure in the informal areas

People tend to invest in land when tenure insecurity is reduced and productivity of land is dependent upon investments such as infrastructure, social amenities. As Manuel and Calderon, (2015) points out, effective stewardship of land is necessary to provide the formal utilities, social infrastructure that buttress inclusive and growth-enhancing urbanizations. On the other hand, where good land registration system exists, guided urbanization has been achieved as planned and serviced land has been availed at affordable costs (UN-Habitat 2014) facilitating low cost housing and minimizing displacement of households. In urban land use planning process, the management of land can play an important role in providing conduce conditions for maximizing the beneficial process of urbanization while minimizing the negative externalities of urbanization on the poor and vulnerable groups. If managed poorly, processes of land administration and adjudication especially in the peri-urban fringe and derelict neighborhoods of informal areas can heighten tension, leading to violence and destabilization.

In providing public infrastructure and services under informality where insecure land tenure systems tend to thrive, informal settlement upgrading interventions has widely been seen as a remedial measure (Abbott, 2002b; Marcus & Asmorowati, 2006; Mukhija, 2002; Turkstra & Raithelhuber, 2004; WorldBank, 2010). Upgrading in essence target the infrastructure provision such as water supply, sanitation, roads, and electricity services, solid waste, wastewater management and street lighting among others since they are critical for improving the livelihoods of informal settlement dwellers (UN-Millenium-Project, 2005). Abbott, (2002a) defines informal settlement upgrading as any sector-based intervention in the informal settlement that results in a quantifiable improvement in the quality of life of the residents affected. UN-habitat have advocated for a participatory and targeted provision and or improvement of basic infrastructure within these settlements (UN-Habitat, 2006c). World Bank (2010) lays emphasis on

legalizing and 'regularizing' the housing in situations of insecure or unclear tenure that in principle should be accompanied by provision of basic services such as clean water supply and adequate sewage disposal in order to improve the well-being of the community at the center of the intervention. Cities Alliance calls for an integrated approach in improving the 'physical, social, economic, organizational, and environmental improvements.

There are many reasons as to why informal settlement upgrading as a form of intervention is undertaken. Some of the most common issues addressed by upgrading programs include:

- Legalization of tenure status for sites and houses, including regularization of rental agreements to ensure improved tenure (Sliuzas, 2003).
- Provision or improvement of technical services e.g., water, waste and waste water management, sanitation, electricity, road pavement, street lighting, etc. (UN-Habitat, 2006c).
- Provision or improvement of social infrastructure such as schools, clinics, community centers, playgrounds, green areas, etc.
- Physical improvement of the built environment, including rehabilitation/improvement of existing housing stock.
- Construction of new housing units (Housing construction can but doesn't necessarily form part of upgrading schemes. Often enhancing and rehabilitating the existing housing stock is much more sensible and effective and can be achieved at little cost through legalization of tenure status or regularization of rental agreements (UN-Habitat, 2006c).
- Design of urban development plans (Yabes, 2000), (including, for example, the rearrangement of sites and street patterns according to infrastructure needs, although working within existing settlement patterns is generally less disruptive to community networks. This measure might entail resettlement of some residents).

IV. CONCLUSION

The result from this paper shows that large swath of land in Kisumu city's peri-urban fringe is yet to be properly adjudicated. In addition, the existing weak land registration and adjudication process in Kisumu city has fuelled to a larger extent the informal land development within the peri-urban fringe. In order to formalize the informal land already under occupation-either through freehold, leasehold, or illegally occupied, proper

procedure of land rights identification, demarcation, cadastral surveying and mapping is required. Efficient land information and adjudication process that is supported by quality data is seen as a prerequisite for helping city managers to make informed decision in providing secure tenure in informal areas. Adoption of robust, transparent and pro-poor urban land use planning process must be instituted in order to promote growth, reduce poverty and promote sustainable, resilient urban landscapes.

There is need for improving the effectiveness and efficiency of land adjudication in Kisumu city which should integrate both technical and legal process. It is imperative that such land use planning take into account the presence of different land governance and administration systems- both formal and informal, particularly those in peri-urban zones that is under transition from customary systems to more formal, state-run systems.

Although it may be difficult to in-formalize formal government's institutional frameworks, more research is needed on how land use planners can integrate or at best synchronize informal land market systems within formal government systems. In addition, there is need to examine how the formal land registration process lead to exclusion of the urban poor residents from owning and using land to their economic benefits. Existing profound social inequities and segregations, and political patronages make impartial and inclusive participation in land use planning in Kisumu city a big challenge. There is also limited commitment to meaningful participation on the side of government even with new policies that has been put in place by the new constitutional dispensation adopted by the country in year 2010. There is therefore need for a more nuanced understanding of the complex procedures, institutions and power structures that shape the urban land use planning process.

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