

Typologies and Pathways to Tenure Security and Implications to Informal Settlement Upgrading Initiatives

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Abstract: Growth of informal settlements in the global south are a growing concern. Though informal settlement upgrading is viewed as the current best practice, the need for impactful upgrading interventions is becoming increasingly critical. Tenure security has been seen as one such intervention. However, whereas research has focused on various aspects, little attention has been given to the implications of secure tenure pathways and typologies, on informal settlements upgrading initiatives, a gap that this study sought to contribute to. Adopting a case study approach, field survey and use of both quantitative and qualitative data analysis, the study reveals that tenure security typologies are attributed to various benefits and impact on informal settlements and thus a critical element in upgrading. However, secure tenure frameworks are constrained by the complex socio-economic and existing institutional frameworks including actors which collectively limit its impact on upgrading including community well-being.

Keywords: Tenure security, informal settlements, upgrading, infrastructure, livelihoods

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I. INTRODUCTION

The urban population is projected to be 70 percent by 2050 with Africa experiencing the highest urban growth rate estimated at 3.87 per cent (United Nations, 2016) and Kenya at about 4.3 per cent a year (World Bank, 2016) is a positive force of economic and social transformation but this has brought unprecedented challenges, among them growth of slums and informal settlements. They are characterized by appalling living conditions and lack of security of tenure. 1 billion people are estimated to inhabit these areas, a number predicted to double in the next 30 years, if action is not taken (UN, 2016). Slum upgrading is seen as the current best practice in addressing this challenge. However, slum upgrading is not without challenges, among them, the ineffectiveness of interventions and approaches.

The need for interventions that yield impact in slum upgrading is becoming increasingly crucial. Lack of tenure security has been acknowledged as a key constraint and therefore a critical intervention in informal settlement upgrading programmes. Historically, earlier debates focused on what it constitutes whether de jure or de facto, (Gelder 2010, Gilbert 2002, Durand-Lasserre, 2007) its importance in upgrading (Gelder, 2010, UN, 2011, Syagga, 2011), its policies and urban planning (Fernandes, 2001,) its management systems, (Lamba, 2005), social and economic impact of titling projects and programmes (Durand Lasserre, 2006) and incrementally securing tenure (Royston, 2014). However, whereas current research has focused on various aspects of land tenure security, little attention has been given to its pathways and effect upon recipient informal settlement communities in upgrading process. This research aimed at contributing to this gap by examining the pathways of land tenure security and implications to communities with a specific focus on infrastructure provision and livelihoods improvement. The research was undertaken through a field survey in three informal settlements in Eldoret, the fifth largest town in Kenya. It comprised household survey, focus group discussions, key informant interviews and field observations. Both qualitative and quantitative data analysis was used to analyse and conclude that security of tenure is a critical element in improving informal settlement communities due to its catalytic effect and positive impact on living conditions and livelihoods. However, its provision is limited by silo and complex paths, processes and typologies. For policy and practice of slum upgrading, the focus should shift from these limiting approaches to more holistic, multi-sectoral and integrated interventions and methods to upgrading that include infrastructure provision and livelihood improvements. This is a necessity in the face of the multidimensional nature of constraints facing informal settlement communities.

II. THEORETICAL UNDERPINNING AND LITERATURE REVIEW

2.1 Debates on tenure security

There is widespread agreement amongst development scholars and practitioners that tenure security is an important ingredient in slum upgrading (Durand-Lasserve, 2007, Payne, 2009, De Soto, 2000, Turner, 1968). However, there are various debates on what it comprises of. One school of thought emphasizes legal tenure, titling or de-jure, (Turner 1968, De Soto, 2000). Titling or legal tenure security has however been criticized as being complicated, expensive, time-consuming, does not unlock capital, does not necessarily result in increased assets and leads to gentrification thus leading into slums rather than improving conditions (Annez , 2014, Galiani and Shargrodsky , 2016,). The second school of thought is tenure security, de facto, rather than legal tenure security as being more important (Gilbert, 2002). This approach does not require the provision of titles, although this is not excluded (Durand-Lasserve, 2007). It combines protective administrative or legal measures against forced evictions. However, this has been criticized that it does not guarantee security. The third view is perceived tenure security which is not formally recognized by the state but recognized by the community itself and the neighbourhood (Payne and Durand 2012, Payne, Durand-Lasserve and Rakodi, 2009). However, like de-facto tenure, it has been critiqued that it does not guarantee security since both are essentially precarious, and can be changed to the detriment of the residents' interests (Fernandes, 2011), are also not legally enforceable, marketable, impedes planning, and deprives governments of important revenue flows (Collier et al. 2018). The fourth philosophy of tenure being a continuum of rights. This approach combines the three views and argues that all the possible forms of tenure are a continuum, along which each form provides a different set of rights and different degrees of security and responsibility (Uwayezu and de Vries 2018, UN, 2014).

From these debates, it is concluded that a wide range of alternative tenure options should be considered and used to respond to the diversity of the needs of low-income households living in informal settlements (UN-Habitat and GLTN, 2011). According to Royston (2014), who advocates for incrementally securing tenure, the intention should be to achieve realistic progression toward more security over time, whether or not the end result is a title or some other legal form of tenure. The ultimate aim is to safeguard the rights to land and housing of all urban poor. For upgrading, legal tenure has been seen to offer the highest security and encourages not only private investment and housing improvement but also public infrastructure since the government is more willing to invest in settlements viewed as permanent (Ducrot ,2010). However, it is constrained by its complex, expensive and time-consuming processes. De-facto and perceived tenure is also seen as having a greater potential in providing security to informal settlers rather than legal tenure (Payne and Durand 2013, Payne, Durand-Lasserve and Rakodi, 2009). However, both de-facto and perceived tenure have been criticised that they do not guarantee security as they remain precarious since they can be changed (Fernandes, 2011) and it should therefore be supported by improvements in social services and livelihood opportunities (Porio and Crisol, 2004).

2.2 Typologies of tenure security

Beyond the debates on what tenure constitutes, it has been categorized variously. It has been documented that tenure systems in African cities include a mix of formal (legal), customary or communal and informal tenure typologies. Payne and Durand-Lasserve (2013) categorizes existing tenure systems broadly into statutory, customary, religious and non-formal tenure systems. Similarly, Kameri Mbote (2016) points out that in Kenya, though the Constitution recognizes three tenure typologies namely public, community and private, other two special types of tenure exist namely the informal tenure and the Ten-Mile Coastal Strip. Uganda on the other hand, according to Hoza (2018), has a pluralistic legal regime where both formal and informal laws govern landownership. These categories of tenure provide a certain degree of security with statutory tenure being seen as providing the highest security while the customary and informal are seen as not providing adequate security. This study investigated tenure typologies and impact on communities and on informal settlements upgrading.

2.3 Pathways to tenure security

Approaches to tenure security are varied depending on a country's policies, legal / institutional frameworks and political orientation. In Africa, though only 10 percent of Africa's land is registered, many countries are employing more appropriate and low-cost approaches to document tenure (Byamugisha, 2015). According to Durand-Lasserve (2007) access to land and housing is mainly through regularization of irregular settlements done through a series of complex and time-consuming procedures that include identification of beneficiaries, resolving disputes, delineating plots by surveying, compensation, registration and titling. Similarly, IFAD (2015) identifies tenure processes as including identifying, surveying and mapping the boundaries of land parcels and the adjudication of ownership or use rights to these but they are slow ,require time and financial resources. Almansi (2009) however adds the dimension of planning in tenure processes. She argues that there is a wide range of approaches, which include strategic development plans or local development plans (integration of social, economic, spatial, environmental approaches to the land issue); urban

plans, urban–environmental plans or land development plans (focusing on physical and spatial/environmental aspects and on management); statutory instruments (focusing on regulating land use, occupation, sub-division and facilities and/or different aspects of the environmental issue); preparation sub-division plans and the final delivery of infrastructure works. Only when these are completed can individual titles be provided but concurs that the constraining factor in tenure processes include Complex administrative processes. This study sought to understand the pathways to tenure security and impact on communities and upgrading processes.

2.4 Implications of tenure security on informal settlement upgrading

It has been argued that infrastructure and service provision have not directly depended on tenure (Fernandes, 2011). However, studies have also shown that unsatisfactory tenure relations can be a serious impediment to investment in services and to poor people gaining equitable access to them (Overseas Development Institute (2002). Further, governments are frequently reluctant to provide basic services in informal settlements because they view such actions as the first step toward legal recognition of the settlements and tenure regularization (Durand- Lasserre 2007). Consequently, the economic situation of the urban poor is negatively impacted (op.cit., 2007).

This notwithstanding, tenure also impacts livelihoods of communities. It is argued that its status is one of the key elements in the poverty cycle (Durand 2007). Insecure tenure deteriorates the economic situation of the urban poor since it discourages household investments (Turner,1968) therefore higher levels of tenure security lead to increased investment and credit access (Deininger and Feder ,1998) and credit into income (Durand-Lasserre and Payne 2006) thus generating individual, household and community benefits (Royston, 2014) and consequently, poverty eradication in developing countries (De Soto 1989). However, it has been argued that security of tenure (titling) may lead to gentrification and that poor people are unable to access credit because of their lack of individual income generation (Kagawa,2000). It is therefore suggested that if tenure is to have a more significant impact on the growing conditions of urban and social poverty, it has to be part of a broader set of public policies aimed at generating job opportunities and income (Fernandes, 2001). This study contributes to these scholarly arguments by contributing knowledge on the impact of tenure security upon recipient informal settlement upgrading.

III. METHODOLOGY

This study used a case study approach where two informal settlements, namely Huruma and Munyaka located in Eldoret town, the fifth largest town in Kenya, East Africa were examined. Data was collected through a household survey, focus group discussions, key informant interviews, and field observations. For the household survey, a representative sample was drawn and randomly selected from each of the settlements. A total of 197 questionnaires were administered across the settlements. Focus Group Discussions (FGD) were conducted with opinion leaders, community leaders, tenants and landlords/structure owners. These were held separately in each of the settlements while key informant interviews were held with purposefully selected relevant institutions such as Ministry in charge of Lands, County Government of Uasin Gishu and National Land Commission. Various observations were also made in the field on the existing tenure. Both qualitative and quantitative techniques were used to analyse the data and draw conclusions.

IV. RESULTS

2.1 HURUMA SETTLEMENT

2.1.1 Typologies: Tenancy and land ownership

Rental Tenure. Rental tenure has been described as monthly tenancies given by property owners and structure owners to tenants mainly for accommodation or commercial use such as shops. This form of tenure was found to be the most prevalent tenure in Huruma as compared to other forms of tenure systems with 75.5% renters or tenants with only 23.5% owners. 70.2% of the tenants indicated that they felt secure from being evicted. Further 63.3% of the tenants moved into Huruma more than 10 years ago, 11.4% ,5-10 years ago, 10.1% moved 1- 5 years ago while only 6.3% moved into the settlements less than a year ago. Reasons for moving included business or investing in the settlement indicated by 24.7%, availability of land by 21.9%, job opportunities nearby, 20.5%, affordable housing, 16.4% to security 12.3% while 4.1% indicated proximity of the settlement to town. On rent 95.9%, indicated increase in the last 2 years, reasons including infrastructure improvements such as electricity and water indicated by 27.0%, renovations or improvements in the houses, 23% and the high demand of houses in the settlements for houses ,16.2%. Despite this people were moving into the settlement, pointed out by 86.7% while 13.3% indicated that people were moving out of the settlement.

Land tenure. —land tenure is characterized as the way land is held or owned by individuals and groups, legally (private, community or public) or customarily. Each has a degree rights on the use, transfer or develop. Legal tenure was the most prevalent in Huruma settlement. It comprised of Freehold Tenure indicated by 75.0% and Leasehold Tenure accounting for an average of 10%. On freedom from eviction, 85% indicated that they felt

secure. According to Douglas Njuguna, a landlord and structure owner and Village Elder for Nyathiru area (Katanda) of Huruma settlement: “There are those people especially those who have high rise buildings that applied for a change of use from agricultural to commercial and were given leasehold titles”. The majority, 75.0% could lease/rent out the land, 61.5% had a right to sell the land, 12.5% could use the land as collateral for a loan and only 4.2% indicated that they could give out the land as an inheritance. Share Certificates from land buying companies on the other hand accounted for 10% . According to secretary of Huruma farmers land buying the company, “people bought shares according to their ability ranging from a quarter acre to one and quarter acres. Those who paid had their titles processed but there are those who did not pay and to this day, they have not received their titles but they have the share certificates.” Public Tenure in Huruma was minimal mainly the existing public schools namely Huruma primary school (originally 5 acres but now 2acres) and the existing public utility areas such as roads and wayleaves. According to FDGs and key informants, some of the public areas were hived off by farm directors and sold. This has a negative impact on the upgrading of settlements. Lack of public land is a constraint to the provision of infrastructure.

Other forms of tenure (temporary occupation/squatting) . These were mainly those who squatted or temporarily occupied public space especially along bus/matatu stages, walkways, road reserves and on top of storm water drains composed mainly of mobile traders with makeshift structures where they display and sell their wares. For this group, however, the risk of eviction remains. The researcher witnessed an eviction of Huruma dwellers squatting along the Eldoret – Uganda road.

2.1.2 Pathways

Tenure security in Huruma settlement , according to study findings ,dates back to the colonial period. According to the secretary to the Settlement Executive Committee, a plot owner and opinion leader in Huruma settlement, “The land was originally bought from white settlers by two individuals namely, Kotut and Maru, as one big farm. A land buying company called Huruma Farmers was formed in 1973 composed of original 480 members and directors who subsequently bought the land and subdivided it to members. The buyers were issued with share certificates by farm directors. According to the Land Registrar in Uasin Gishu County, the continued informal subdivisions and developments contributed to informality in Huruma. In the 80s the government commenced processes of regularizing the tenure. ‘This commenced with the planning of the settlement’ according to a planner in the Uasin Gishu Lands office who further reported that the municipal council, the survey department and Lands Department also played a role in the tenure process but during different periods.

The government approach to the provision of tenure, according to findings was silo with 88.9% indicating that tenure processes of planning, surveying , registration and titling were individually done and the majority of respondents, 63.0% indicated there was no collaboration with other institutions. Other challenges cited delays in processing documents 30.8% c (65.4% cited timeline of 10-20 years) with and similar percentage indicated lack of money, 11.5% cited corruption as an impediment while 7.7% indicated ownership disputes and 3.8% poor coordination in tenure security provision.

2.1.3 Effects of tenure security on upgrading

In Huruma the chi-square statistic showed that those with the security of tenure have higher incomes than those without determined by the Likelihood Ratio statistic of $0.021 < 0.05$ (α - significance level). Similarly, chi-square statistic showed that tenure security is linked to assets owned with those with the security of tenure having more tangible assets than those without the security of tenure determined by the Likelihood ratio $0.029 < 0.05$ α – sig level in Huruma. From cross tabulations analysis, the majority of those with the security of tenure live in the permanent housing units while those without tenure the majority have temporary housing unit. A cross-tabulation established that majority with the security of tenure have piped water from the shared compound tap, and tenure determined sanitation determined by the likelihood ratio of $0.039 < 0.05$ α – sig. level with majority 69.6%,with tenure security having had a form of sanitation. Security of tenure also determines connections to electricity, determined by the Fisher’s Exact test, $0.017 < 0.05$ sig. level in Huruma, with majority with a formal connection to their housing units having had the security of tenure while the highest percentage with an informal connection to electricity did not have the security of tenure.

2.2 MUNYAKA SETTLEMENT

2.2.1 Typologies of tenure: Tenancy and land ownership

Like Huruma, Munyaka settlement is characterized by both rental and land tenure. However, unlike Huruma the land tenure is semi-legal or transitional with most owners holding share certificates and not titles.

Rental tenure. Rental tenure was similarly prevalent in Munyaka with 66% rent-paying tenants and 32% owners. 62.5% the tenants felt secure from eviction. The tenants felt Compared to Huruma , most tenants had not lived in the settlement for very long with 19% having moved into the settlement more than 10 years ago,

24.1%, 5-10 years ago, 22.4% 1-5 years ago, while 10.3% less than a year ago, a figure that is higher than that of Huruma. The reasons advanced for moving to the settlement are similar to those of Huruma though differing in magnitude. 33.3% cited business or investment, 22.2% job opportunities, 11.1% availability of ample land in the settlement, 6.7% good infrastructure or good security in the settlement while 4.4% affordable housing. On rent, 71.4% indicated that rent increase in the last 2 years due to renovations or improvements in the houses indicated by 28.2%, infrastructure improvements 15.4% while 12.8% high demand for houses though this is lower compared to Huruma. Like in Huruma, people are moving into the settlement at in 85.0% reasons being affordable housing and livelihood with 25.0%, good security 20.0%, job opportunities 10.0% and surprisingly only 5% cited improved infrastructure as a reason for moving into the settlement. On the other hand, there are still people moving out of the settlement, the reasons given were poor infrastructure, expensive housing and livelihood and land insecurity.

Land tenure. Unlike Huruma where the majority of owners had titles, Munyaka settlement was characterized mainly by semi-legal or transitory tenure comprised of share certificates with limited titling. However, 75% indicated that they felt secure and would not be evicted. The forms of tenure found were Freehold Tenure indicated by 29%, Leasehold Tenure 10%, Share Certificates 60% and Public tenure which was minimal having been reduced over time. According to a landowner and resident of Munyaka settlement, "Originally 8 acres had been set aside for a school but the size that is existing now is 2 ½ acres for Munyaka Primary school. 2 acres had also been set aside for a shopping Centre/market but this has since been reduced to a 50x80 feet plot. These portions of lands were sold by the directors of the company." Other forms of tenure included temporary occupation or squatting mainly on roadsides and bus stages.

2.2.2 Pathways

Munyaka settlement has had a similar chronology to that of Huruma. As reported by a resident and plot owner of the settlement, "Munyaka was originally farmland measuring 100 acres owned by Miyako and he had a title to the land. He and 5 other directors brought people especially those who have chased away from the forests and asked them to register as members of Munyaka land buying company. They were to pay Ksh 5000. The directors subdivided the land into more than 1,500 plots of 50x50 and 50x80. An unqualified surveyor-undertook this subdivision. Each person was required to pay 9,500 for processing of titles. There is only one head title but the members have share certificates, no one has a title. The same surveyor is following up on their title. On the lower side, however, the part bought by other residents called Mutiriria, it was subdivided and some people have titles."

On the approach to the provision of tenure, the majority 68.8%, indicated the processes were done individually. However, the majority, 52.9%, indicated that there was a collaboration between institutions, unlike Huruma where majority indicated there was no collaboration. The main challenge in Munyaka was delays in title processing. According to the household survey, 43.8% indicated that it took more than 21 years to get titles and still counting. The second challenge cited was the high cost associated with the process of acquiring the title.

2.2.3 Effects of tenure security on upgrading

Research findings showed that tenure security determines the nature of housing, that is, whether permanent, semi-permanent or temporary structure determined by a Likelihood ratio $0.044 < 0.05$ α - significance level. From cross tabulations analysis 26.7% with tenure security have permanent housing while 40.0% have semi-permanent housing units compared to 0% and 6.7% respectively of those without tenure. However, the data showed no clear evidence on tenure and household incomes determined by the Likelihood Ratio statistic of $0.740 > 0.05$ (α - significance level) as well as the on the nature of employment determined by the Fishers' Exact test statistic of $0.400 > 0.05$ α - significance level, the education levels determined by the Fisher's exact test $0.400 > 0.05$ α - sig level, the skills possessed determined by the Fishers' Exact test statistic $0.791 > 0.05$ α - sig. level.

On infrastructure, data showed that dwellers with the security of tenure were more likely to have tap water in the compound than those without determined by a likelihood ratio of $0.047 < 0.05$ α – sig. level. Similarly, there is a linkage between tenure security and sanitation. The cross-tabulation indicated that most Landlords/Structure owners with tenure security had some form of sanitation with 86.7% having a shared a pit latrine and bathroom inside the compound, 6.7% had a toilet and bathroom in the house while none was connected to a sewer line. On the contrary, those without the security of tenure have minimal sanitation with only 6.7% having shared pit latrine and bathroom outside the house but within the compound and none was connected to the sewer. Security of tenure also determines connections to electricity, determined by the Fisher's Exact test $0.026 < 0.05$ sig. level in Munyaka. On electricity, the analysis showed that it is dependent on tenure security as determined by Fisher's Exact test $0.026 < 0.05$ sig. level. Cross-tabulation showed that 73.3% with tenure while none without tenure was formally connected but 6.7% were informally connected.

V. DISCUSSION

This study's objective was to understand tenure security as an intervention in slum upgrading with specific focus on how its pathways and typologies affect informal settlements communities and settlement upgrading using case study settlements of Huruma and Munyaka informal settlements in Eldoret, Kenya. Drawing from findings and analysis of field data, the following issues emerged.

2.1 Tenure typologies and implications to informal settlement communities and upgrading

The study found that rental tenure is the most prevalent tenure in both Huruma and Munyaka settlements as compared to other forms of tenure systems thus acknowledging that rental housing is a key feature in informal settlements that must be taken into consideration in upgrading. Bird, (2017), Taylor, Banda and Mwanangombe, (2015), Dimanin, (2012), Gulyani and Talukdar, (2008) found that a large segment of informal settlement dwellers are rent-paying tenants. The study also showed that majority of the tenants felt secure and free from evictions indicating a possible catalytic effect of the secure land tenure that the settlements, especially Huruma, enjoyed. This reiterates the critical role of rental tenure as an aspect of in well-functioning cities and an essential housing option for the poor (WSUP, 2013). However, the increase in monthly rents is a constraint and has contributed to gentrification. Upgrading should thus embrace integrated and simultaneous approaches and strategies that support the urban poor communities, including renters, through infrastructure provision and direct support to livelihoods such as incomes, employment, education, skills, health and economic activities that can empower communities, alongside tenure security (Mangira, Musyimi and Obiero, 2019, Minnery, 2013).

Land tenure typology found in the case study settlements was statutory, comprising of both freehold and leasehold though the former was more predominant. In Kenya, the statutory tenure is largely attributed to the colonial heritage where the land ownership is based on English law and globalization that has tended to reinforce the rights of individuals (Kameri- Mbote 2016). Freehold tenure has been described as the highest form or most secure form of tenure since its absolute ownership with unlimited right to use and dispose of land in perpetuity while leasehold interests are restricted in terms of development and use. From the study findings, the majority of the dwellers, especially in Huruma settlement, admitted to feeling secure and had rights that included the right to sell, lease, borrow loans or give as an inheritance thus empowering the communities. For upgrading, the statutory tenure is ideal not just because of being the most secure for dwellers but also due to its marketability and enforceability the latter of which enables governments to impose taxes and other obligations on landowners for the public good (Collier et al, 2018) contributing to sustainability of upgrading efforts and urban development. Though this form of tenure is the most ideal, its shortcomings of complex, costly, bureaucratic and lengthy processes must first be overcome.

The study also found that intermediate forms of tenure exist in the informal settlements in the form of share certificates. It was most prevalent in Munyaka with pockets in Huruma settlement. From the study, these were ownership documents issued by land buying companies to shareholders upon informal subdivision of land. This could be described as transitory or intermediary tenure and others have termed it informal land delivery. They are however not recognized as legal tenure. It has been argued that they are a poor form of collateral for banks and are also less able to be transacted than freehold and leasehold titles, making them less suited for more central urban areas where efficient land use is key (op.cit. 2018). Others have argued that intermediate tenure options need to be combined with regulatory audits of planning regulations, standards and administrative procedures in ways that provide adequate levels of security (Payne, 2009) and must be supported by improvements in social services and livelihood opportunities (Porio and Crisol, 2004). Other scholars have lauded this form of informal land delivery mechanism for availing large quantities of plots to urban poor (Musyoka, 2004, Rakodi, 2002). This study however opines that it is critical that these intermediate forms of tenure are pushed to completion so as to reap the benefits of legal tenure.

Public tenure is limited in informal settlements. Study findings showed that areas set aside for public utilities were gradually reduced in favour of individual private plots. The lack of public tenure constraints provision of both physical and social infrastructure and thus exposing communities to vulnerabilities. Planning must take a lead in ensuring urban areas are planned with adequate provision for public utility areas and safeguarding the same through implementation and development control. The study findings also showed that other forms of tenure exist in informal settlements that do not fit in these categories. According to Payne and Durand-Lasserve (2013), these are categorized as non-formal tenure that includes unregularized squatting, unauthorized subdivisions on legally owned land and various forms of unofficial rental arrangements (op.cit. 2013). The risk of eviction for this category is extremely high.

2.2 Pathways to secure tenure and implications on informal settlement communities and upgrading

The study findings showed a peculiar deterioration of initial secure tenure to tenure insecurity requiring re-securing. The two settlements of Huruma and Munyaka experienced this but in differing degrees with Huruma having gone full circle while Munyaka is still in the process. This historical and chronological tenure dynamics from lived experiences and narratives from dwellers is summed up in figure 1.

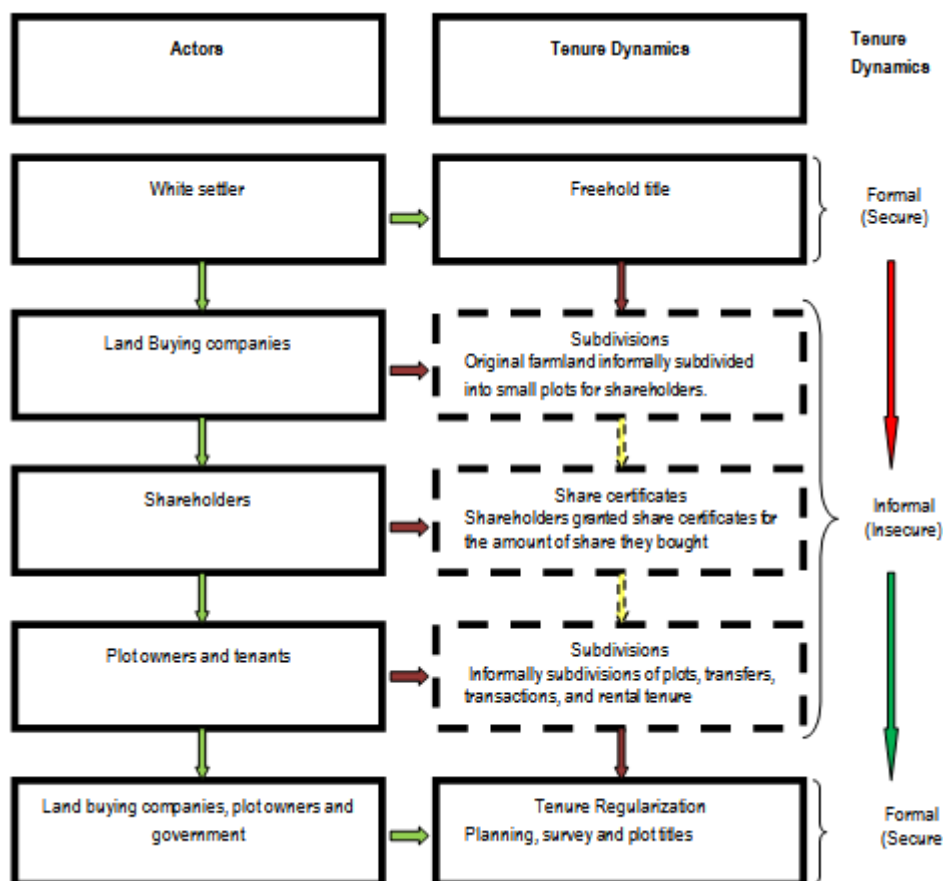


Figure 1: Evolving tenure dynamics. Source: Author

The above illustration on evolving tenure dynamics shows the metamorphosis of security of tenure from tenured land to informal settings and back to secure tenure in addition to the prime movers or actors and the tenurial activities that defined the tenure status of the settlements over time. Secure legal ownership mutated to insecure status due to illegal subdivisions, transfers, unregulated developments coupled with lengthy and costly land administration and management processes. Interestingly the land professional was a player in this whole tenure web both as a facilitator and a barrier.

This irony of legal tenure, seen as the highest form of security, turning insecure, requires rethinking strategy and approaches to securing tenure for informal settlement communities. The metamorphosis from legal tenure to informality and back to legal tenure is a phenomenon that has not received much attention, yet it is critical for policy and practice of upgrading. The implication of this to policy and practice in upgrading is, first, that informality also occurs on tenure secured land unlike the widely held notion that slums and informal settlements have no security of tenure. The question, therefore, is why, having had secure tenure, did the settlements exhibit characteristics of informality? This has been attributed to illegal sub-divisions which are attractive because they are quick (Wu, et al, 2013, Leduca, 2001), weak development control laws that contribute to an efficient ‘informal’ land market (Wu, et al ,2013) and unaffordability of the costs entailed in remaining formal, (Galiani and Schargrodsy, 2016.). As a result, a gradual process of de-regularization (losing their legal tenure rights) occurs that eventually leads to a new need for costly public interventions (op.cit, 2016.) which threatens to undo the success of the titling program in the long run (Gutierrez and Molina, 2016). This study argues that secure tenure can turn insecure if other interventions are not put in place to support it. To safeguard communities from vulnerabilities, it is critical that other interventions, particularly infrastructure and livelihoods improvements are integrated with the intervention of tenure. Secondly, the land professional plays a critical role in facilitating or constraining acquisition of tenure security, therefore, they, together with the

respective institutions must transform into enablers and not an impediment to informal settlement communities in their quest for tenure security.

Study findings also revealed isolated and mono-sectoral approach to secure tenure which proceeded without adequate coordination and integration across departments and sectors. In the two case study settlements, the departments of planning, survey and land administration worked independently of each other although the output of one affected the other. This together with the multiple but uncoordinated actors of land buying companies, the local authorities (county), national government and lately the National Land Commission, rendered the land ownership process ineffective, costly and may be a contributory factor to the growth of informal settlements since the dwellers resort to informal transactions and constructions. For upgrading to be more effective, the departments and institutions should deploy their activities simultaneously so as to leverage common processes and synergies for faster and sustainable land delivery processes to guarantee tenure security.

2.3 Tenure security implications on informal settlement upgrading

The study findings showed that security of tenure has had a positive impact on housing investment, incomes and assets of informal settlement communities. Other researchers have made similar observations that tenure security influences housing investment but in part (Van Gelder, & Luciano, 2015). On incomes, however, other studies found no evidence that titling had generated an increase in household income, (Galiani and Shargrotsky 2005). Tenure security is therefore a critical element in upgrading but needs to be supported by other strategies that include infrastructure and livelihood improvements. Parry (2015) observed that tenure is key to improving quality of life, but cannot end poverty in isolation but in the creation of livelihood opportunities and the provision of social and economic services, either by the government, private sector or through the efforts of communities themselves.

This study further found that tenure security drives infrastructure development in upgrading. During the initial informal subdivisions of the hitherto large farms, when secure tenure became precarious and insecure, infrastructure was non-existent. This could be attributed to the evolving instability of tenure due to lack of planning, informal subdivisions, mushrooming unplanned and substandard housing and constructions and non-adherence to municipal bylaws. This inadequacy of tenure in the early years of the 70s to 80s influenced the lack of infrastructure in the settlements all of which negatively impacted the living conditions and wellbeing of the communities. Scholars have argued that unsatisfactory tenure relations can be a serious impediment to investment in roads and other services, and to poor people gaining equitable access to them (Meeks, 2016). Confirming the principle that governments are frequently reluctant to provide basic services in informal settlements (Satterthwaite and Mitlin, 2013) because of the lack of tenure (Durand- Lasserre 2007). Even alternative service providers hesitate before investing in informal slums due to the threat of possible demolition/eviction of slums, which, in turn, affects the willingness of service providers and slum-dwellers to invest in infrastructure improvements (Annamalai, et al, 2016). The downside of this, however, is that in the absence of tenure security, illegal services thrive, especially in the electricity and water sectors (op.cit, 2016) and informal communities have to bear the high costs of these utilities and insecurities and dangers that come along with illegal connections.

Once the tenure was largely secured, however, the three settlements became recipients of government intervention, initially piecemeal but later prioritized for comprehensive infrastructure in 2010 and upgraded in 2014-2016 with support from international agencies of World Bank. Security of tenure, therefore, influenced the provision of infrastructure to the informal settlement communities which subsequently improved their living conditions and livelihoods. Statistically, tenure security was shown to be significantly linked to water, sanitation and electricity connections to households where those with the security of tenure are more likely to have water, sanitation and electricity connections. Benefits accruing to communities from these include improved cleanliness and health, reduced incidence of diseases, increased businesses and income. This indicates that infrastructure projects can easily be implemented and can succeed if tenure has been secured and communities with tenure are more confident and formally connect to these utilities. The debate is whether the legal tenure provides sufficient security and if tenure is the precursor or successor of investment (WSUP, 2013). It is evident that security of tenure and infrastructure are intricately linked. For this reason, a dual entry approach of both tenure and infrastructure provision (Payne, Piaskowy, and Kuritz, 2014), Gulyani and Talukdar, 2008) has been advocated as an ideal approach to improving living conditions in informal settlements. On the negative side, high utility costs, rents and increased land values triggered gentrification. It has been observed elsewhere that market evictions which create a cycle of poverty where the poorer members are forced out by market dynamics to poorer areas (Durand Lasserre 2007). The argument for this study is the need for integrated approaches that address both physical improvements and livelihoods to reduce constraints that lead to market evictions.

VI. CONCLUSION

The study sought to understand the tenure security in upgrading. In particular its pathways, typologies and effects on informal settlement communities and upgrading. Based on field survey undertaken in two case study areas of Huruma and Munyaka, the study concludes that security of tenure is a critical element in improving informal settlement communities due to its catalytic effect and positive impact on both living conditions and livelihoods. It is a basis upon which infrastructure upgrading can be done and promotes household connections to utilities such as electricity, water and sanitation. It also enhances the livelihoods of communities in the areas of housing, assets and incomes. The positive impacts of private investment in housing and general neighbourhood improvement and increased infrastructure investment are in line with findings of other researchers (Rakodi, 2014) but others have argued that tenure security has little impact on incomes (Galiani and Shargrodsky, 2005). Further, security of tenure can lead to gentrification thus depriving sections of communities, especially the poorest in informal settlements, of security. Secondly, it emerged that even for those with secure tenure can, over time, turn insecure. This is partly attributed to the processes of obtaining tenure security which is marred by challenges of complexity, cost, bureaucracy, and single sector approaches that constrain informal settlement communities. Other scholars have equally criticized this type of tenure as being complicated, expensive and time-consuming (Annez, 2014).

For policy and practice of upgrading, the focus should shift from silo and sectoral approaches to holistic, multi-sectoral and integrated interventions and approaches to upgrading. This is a necessity in the face of the multidimensional nature of constraints facing informal settlement communities. Of critical importance is the need for upgrading to move beyond physical interventions to incorporate people-centred livelihood strategies to capacitate the urban poor to put tenure security, and other interventions, into profitable use. Integration and collaboration define the current policy in development as contained in the indivisible Sustainable Development Goals (SDGs), which have emphasized the interweaving of economic, environmental and social dimensions to realize sustainable development. Sustainability can be achieved by leveraging interlinkages in interventions, sectors and institutions.

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