

**IMPLICATIONS OF LAND TENURE SECURITY ON  
SUSTAINABLE LAND USE IN INFORMAL  
SETTLEMENTS IN NAIROBI**

**OLALE O. PHILIP  
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**UNIVERSITY OF NAIROBI  
CENTER FOR ADVANCED STUDIES IN  
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## DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signed:.....Date:.....

**Candidate: Olale O. Philip**

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

Signed:.....Date:.....

**Supervisor: Dr. Collins Odote**

Signed:.....Date:.....

**Supervisor: Dr. Robert Kibugi**

## **DEDICATION**

I wish to dedicate this thesis to all those who materially, spiritually, emotionally and physically contributed to its fruitful completion. Specific dedication to Mum and Dad for sparing your all to facilitate my education; Sister Nancy for your unwavering support, inspiration and belief in my capabilities that kept me uplifted even during the tough times; to my aunt Mary for instilling discipline and hard work in me during my formative years; and to my friends, you now understand my limited availability within our social endeavors.

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## **ABSTRACT**

The nature of property rights society vests in individuals or groups and the manner in which those rights are exercised through a land tenure system have implications for the sustainable use of land. Using Kosovo and Kambi Moto informal settlements in Nairobi as case studies, the researcher investigated whether improving land tenure security would lead to sustainable land use and eventual improvement of the environment in informal settlements. In this study, the researcher outlines the fact that informal settlements have become common phenomena in urban areas in developing countries and faced by a myriad of challenges. The findings presented in the study show that with the prevailing insecure tenure, urban dwellers in the informal settlements lack incentives to engage in any meaningful sustainable land use. Thus the prevailing land use is characterized by among others unplanned land use activities such as construction of temporary shelters and informal sector activities, unsatisfactory solid waste disposal, problems associated with open sewer system, air and water pollution from industrial activities, unsustainable urban agriculture practices, and occupation of riparian reserves. This scenario ensues because residents are not assured of their ownership of the land they occupy, thus they are sensitive to the fact that anytime the rightful owner could claim the land. Therefore, building from the social relations theory in property, this study recommends and positions the continued clamor for land rights and ultimately environmental rights by the urban poor on the provision of secure tenure. Nevertheless, such tenure should clearly clarify the duties and responsibilities of those occupying land in the informal settlements towards sustainable use of the land.

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Urban Areas and Cities Act, Chapter 275  
County Governments Act. Chapter 265

## ACRONYMS

ACHPR	African Charter of Human and People's Rights
CoK	Constitution of Kenya
CASELAP	Centre for Advanced Studies in Environmental Law and Policy
CURI	Centre for Urban Research and Innovations
CRC	Convention on the Rights of the Child
EMCA	Environmental Management and Coordination Act
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GHG	Greenhouse Gases
HABRI	Housing and Building Research Institute
ICESCR	International Covenant on Social, Economic and Cultural Rights
ITDG	Intermediate Technology Development Group
KISIP	Kenya Informal settlements Improvement Project
KENSUP	Kenya Slum Upgrading Programme
LPI	Land Policy Initiative
MDG	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
NCC	Nairobi City Council
NLC	National Land Commission
NEMA	National Environment Management Authority
NGOs	Non-Governmental Organizations
NYS	National Youth Service
NCC	Nairobi City County
OWG	Open Working Group
SPSS	Statistical Package for Social Sciences
SDGs	Sustainable Development Goals
UDHR	Universal Declaration of Human Rights

# CHAPTER ONE

## INTRODUCTION

### 1.1: Background to the Study

Within urban areas, protection and conservation of the environment continues to be faced by a myriad of challenges key amongst them rapid urbanization and uncontrolled population growth. An urban area refers to zones within a human settlement with a distinctive character defined by the people's way of life, the agglomeration of both economic and social activities, and the compactness of the built-up area.<sup>1</sup> Globally, many regions are undergoing simultaneous processes of suburban sprawl and urban decline, along with other related challenges to the quality of urban areas. These include ecosystem fragmentation and degradation, air and water pollution, and aesthetic decline – all yielding urban areas that can be unhealthy, unjust, ugly, dull, and unfulfilling places to live.<sup>2</sup>

Indeed, urban areas are especially vulnerable to the vagaries of environmental degradation because they concentrate industries, transportation, households and many of the emitters of greenhouse gases (GHG).<sup>3</sup> Current estimates show that over half of the world's population lives in urban areas and by the middle of this century all regions will be predominantly urban, with the tipping point in Eastern Africa anticipated slightly after 2050.<sup>4</sup> Further statistics from UN-Habitat postulate that urban growth will be highest in smaller and developing cities and

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<sup>1</sup> Jorge Hardoy and David Satterthwaite, 'Journal Article Small and Intermediate Centres in the Third World: What Role for Government?' (1988), <<http://liverpool.metapress.com/content/6827m470608rv71n/>>

<sup>2</sup> See Land Use and Environmental planning; available at [http://taubmancollege.umich.edu/planning/programs/graduate/concentrations/landuse\\_and\\_environmental\\_planning/](http://taubmancollege.umich.edu/planning/programs/graduate/concentrations/landuse_and_environmental_planning/); accessed 26<sup>th</sup> September 2014

<sup>3</sup> Patricia Romero Lankao, 'Urban Areas and Climate Change: Review of Current Issues and Trends' (2008)

<sup>4</sup> UN HABITAT, *State of World Cities* (2011)

that if current trends continue; the slum population will reach 1.4 billion by 2020.<sup>5</sup>

Various land uses including transportation, industrial, urban agriculture, residential and recreational areas such as parks and open spaces characterize urban areas in Kenya. Other land uses include public purpose development and public utility uses including water supply, sewerage system, and garbage collection and disposal sites. Spatially, the internal structures of major urban centers in Kenya are well mapped into distinct zones based on these land uses.<sup>6</sup> Nonetheless, there have been cases of both planned formal developments and spontaneous development of privately developed informal settlements in the major urban centers.<sup>7</sup> These settlements have continued to occupy both poor and hazardous pieces of land or squat on public or private land with no formal systems in place to provide affordable amenities. Some of these land occupied by informal settlement dwellers include riparian reserves, swamps, steep slopes, refilled quarries and garbage dumps. It is also common to find informal settlements on utility reserves like railway safety zones, land under high voltage power lines and on road reserves.

The term *informal settlement* is often used in preference to that of *slum*, but in reality the terms are synonymous especially in reference to the conditions therein. Informal settlements are not a finite static object, but rather the result of a long process of socio-economic exchange and physical improvement with the formal means of production in the city at large.<sup>8</sup> Whether they are established on public or private land, they develop irregularly and often do not have critical

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<sup>5</sup> United Nations, *World Urbanization Prospects, the 2011 Revision*: Department of Economic and Social Affairs, (Population Division: New York 2012), <<http://esa.un.org/unpd/wup/Documentation/highlights.htm>>

<sup>6</sup> Washington H.A. Olima, 'The Dynamics and Implications of Sustaining Urban Spatial Segregation in Kenya: Experiences from Nairobi Metropolis' (2001) <[www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf](http://www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf)> accessed 18 December 2013

<sup>7</sup> *ibid*

<sup>8</sup> Jota Samper, 'Toward an epistemology of the form of the Informal city: Mapping the process of informal city making' (2012) <<http://informalsettlements.blogspot.com/>> accessed 20 February 2014

public services such as sanitation, resulting in health and environmental hazards.<sup>9</sup> Since it first appeared in the 1820s, the word slum has been used to identify the poorest quality housing, and the most unsanitary conditions; a refuge for marginal activities including crime, ‘vice’ and drug abuse; a likely source for many epidemics that ravaged urban areas; a place apart from all that was decent and wholesome, however, today the term “slum” is loose and deprecatory hence is seldom used by the more sensitive, politically correct, and academically rigorous.<sup>10</sup> The operational definition of informal settlement adopted by this study relates to the one advanced by UN Habitat which combines a number of characteristics, restricted to the physical and legal characteristics of the settlements and excluding the more difficult social dimensions i.e. inadequate accesses to safe water, inadequate access to sanitation and other infrastructure, poor structural quality of housing, overcrowding and insecure residential status.<sup>11</sup>

Conversely, within these urban informal settlements a myriad of land uses – informal housing, urban agriculture, service and utility, light industrial developments, and infrastructure installations - which more often than not are characterized by unsustainable land use activities abound. Some of these land use activities, for example waste disposal at non-designated areas such as riparian reserves and open spaces seriously degrade the environment. Similarly, housing structures within these settlements are constructed on ecologically fragile land such as riparian reserves. Increased population growth within these settlements further exerts pressure on the land uses. Such a scenario portends serious challenges towards achieving the millennium development goals in the short-term and sustainable development principles in the long-run, as a majority

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<sup>9</sup> See, ‘Abstract Regularization of Informal Settlements in Latin America (Policy Focus Report)’ < <http://www.lincolnst.edu> > accessed 20<sup>th</sup> February 2014

<sup>10</sup> UN Habitat, ‘What are slums and why do they exist?’ (2007) < [www.unhabitat.org](http://www.unhabitat.org) > accessed 20 February 2014

<sup>11</sup> UN-Habitat, *The Challenge of Slums* (2003) <[www.unhabitat.org](http://www.unhabitat.org)> accessed 20 February 2014



poor living in the informal settlements strive to secure their basic needs, sometimes with little or no regard to the environment.<sup>12</sup>

The problem of environmental degradation within these informal settlements ensues largely because they have not been targets of land planning policy, law and activity.<sup>13</sup> Indeed, informal settlements being the manifestation of a partial breakdown of the land tenure system, occurs because at such stage land tenure defines some people as landless – as having no recognized land rights.<sup>14</sup> The informal settlement dwellers are hence faced by tenure insecurity, as they are not subjects of land tenurial arrangements since they are definitionally invisible according to existing land tenure.<sup>15</sup> Land tenure security responds to an individual's perception of his/her rights to a piece of land on a continual basis, as well as the ability to reap the benefits of labour or capital invested in land, either in use or upon alienation.<sup>16</sup> As such, the prevailing land rights that exist in relation to a piece of land accruing to an individual or a variety of entities such as communities, clans, companies and the government signify the legal right and ability of a person, holding the tenure rights, to make decisions on how they can use their land to achieve a desired objective.<sup>17</sup>

## **1.2: Statement of the Research Problem**

Sound environmental protection and management have to do with foresighted and balanced exploitation of natural resources and generally prudent land use so

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<sup>12</sup> World Commission on Environment and Development, 'Our Common Future' (2000), <<http://info.worldbank.org/etools/docs/library/36496/PovertyEnvironment.pdf>> accessed 17 September 2014

<sup>13</sup> Kivutha Kibwana, 'Land Tenure, Spontaneous Settlement and Environmental Management in Kenya' in Smokin C. Wanjala (ed), *Essay on Land Law: The Reform Debate in Kenya*, (Faculty of Law, University of Nairobi, 2000) Pg. 105

<sup>14</sup> Ibid

<sup>15</sup> Ibid

<sup>16</sup> Gladys Mutangadura, 'The incidence of land tenure insecurity in Southern Africa: Policy implications for sustainable development' (2007) *Natural Resources Forum* 31 176–187 <<http://agoralogin.research4life.org>> accessed 14 March 2014

<sup>17</sup> Kenya Human Rights Commission, *Women and Land Rights in Kenya*, (1998): Robert Machatha Kibugi, 'Governing Land Use in Kenya: From Sectoral Fragmentation to Sustainable Integration of Law and Policy', (Thesis University of Ottawa, 2011)

that activities aimed at inducing development achieves sustainability.<sup>18</sup> According to Ogolla and Mugabe, the nature of property rights society invests in individuals or groups and the manner in which those rights are exercised have important implications for the sustainable use of land, the conservation of natural resources, and the maintenance of essential ecological processes.<sup>19</sup> Essentially, land tenure can promote land use practices that harm the environment or it can serve to enhance the environment.<sup>20</sup> In this regard, the respective tenure arrangements and the resultant ‘bundle of rights’ or property rights that people hold are critical.

Nonetheless, in Kenya, informal settlement dwellers have continued to occupy both poor and hazardous pieces of land or squat on public or private land characterized by no and/or limited tenure rights. This lack of secure tenure is manifested from the informal and/or illegal land tenure systems, or are on a continuum somewhere between an informal or illegal and legal land tenure system that characterizes these settlements.<sup>21</sup> UN-Habitat argue that as illegal or unrecognized residents, many of these informal settlement dwellers have no property rights, nor security of tenure, but instead make other necessary arrangements in an informal and unregulated market.<sup>22</sup> Similarly, informal settlements are characterized by environmental and land use problems. Some of these challenges include inordinate pressures on land arising from unplanned land use activities such as construction of temporary shelters and informal sector activities, unsatisfactory solid waste disposal, problems associated with open

<sup>18</sup> Kivutha Kibwana, ‘Land Tenure, Spontaneous Settlement and Environmental Management in Kenya’ in Smokin C. Wanjala (ed), *Essay on Land Law: The Reform Debate in Kenya*, Faculty of Law, University of Nairobi, (2000) Pg. 456

<sup>19</sup> Ogolla, D. and Mugabe, J., ‘Land tenure systems and natural resources management’ in Juma C. and Ogwang J. B. (ed) *Land We Trust: Environment, Private Property And Constitutional Change* (ACTS 1996)

<sup>20</sup> Natural Resources Forum, ‘How important is security of land tenure for achieving sustainable development goals?’ Natural Resources Forum 31 (2007) p.238–240 <<http://agoralogin.research4life.org>> accessed 14th March 2014

<sup>21</sup> See Clarissa Fourie, The role of local land administrators: An African perspective, Land Use Policy (1998) quoting Docbelc, 1991; Davies and Fourie. 1996: see also Paul M. Syagga, ‘Land Tenure in Slum Upgrading Projects’, [http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul\\_Syagga\\_-\\_LAND\\_TENURE\\_IN\\_SLUM\\_UPGRADING.pdf](http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul_Syagga_-_LAND_TENURE_IN_SLUM_UPGRADING.pdf) accessed on 18 December 2013

<sup>22</sup> UN-Habitat, *The Challenge of Slums*; (2003) < [www.unhabitat.org](http://www.unhabitat.org) > accessed 25<sup>th</sup> February 2014

sewer system, air and water pollution from industrial activities, unsustainable urban agriculture practices, and harborage of riparian reserves among others.

Using Kosovo and Kambi Moto informal settlements in Nairobi, the main concern of this research was to find out whether improving tenure security in urban informal settlements would lead to sustainable land use and eventual improvement of the environment.

### **1.3: Research Questions**

This study sought to find out whether land tenure security contributed to sustainable land use within informal settlements. Therefore, the research questions that were pertinent to this study included;

- a) What land uses characterize the informal settlements under the prevailing tenure arrangements?
- b) What are the effects of the current tenure arrangements on land use practices in the informal settlements?
- c) Does securing tenure positively impact on land use practices in informal settlements?

### **1.4: Research Objectives**

The main objective of this study was to find out the underlying relationships between land tenure security and sustainable land use within informal settlements. Specific objectives included;

- a) To investigate the land uses that characterizes the informal settlements under the prevailing tenure arrangements.
- b) To examine the effects of the current tenure arrangements on land use practices in the informal settlements.
- c) To find out whether securing tenure positively impact on land use practices in informal settlements.

### **1.5: Hypothesis**

Land tenure security has an impact on sustainable land use and eventual environmental sustainability within informal settlements.

### **1.6: Significance of the Study**

This study recognizes that hitherto, there has been limited research on the link between land tenure security and sustainable land uses within informal settlements in Kenya. This is despite a growing acceptance of the argument that lack of security of tenure has proved to be a major impediment towards informal settlement upgrading and prevention. Therefore, by filling this knowledge gap, the findings of this research will buttress the government programs to address the challenge of informal settlements, namely, Kenya Slum Upgrading Programme (KENSUP) and Kenya Informal settlements Improvement Project (KISIP) whose objective is to improve the overall livelihoods of people living and working in slums through targeted interventions to *inter alia* address land tenure issues.

The policy and legal recommendations that would be informed by the findings of this study would inform policy makers and takers on empirical strategies to ameliorate environmental management and sustainable land use within informal settlements. More specifically, when implemented, then attainment of Vision 2030, which seeks to achieve a just and cohesive society enjoying equitable social development in a clean and secure environment, shall be realizable.

### **1.7: Key Concepts Relevant to the Study**

#### **1.7.1: Land Tenure**

Land tenure refers to the terms and conditions, under which rights to land and land-based resources are acquired, retained, used, disposed of, or transmitted. Land tenure denotes the quantum of property rights that a given society has decided to allow individuals or groups thereof to hold, and the conditions under

which those rights are to be enjoyed.<sup>23</sup> As such, land tenure is based on certain rights such as ownership and right of use, which can be determined either by societal regulations or by private agreements and decisions.<sup>24</sup> Land tenure provides the framework within which such societal regulations and private agreements are domesticated. Olima and Obala argue that land tenure consists of various laws, rules, procedures and obligations that govern the rights, interests in land, duties and liabilities of people in their use and control of land resources.<sup>25</sup>

The Constitution of Kenya under Article 61(2) classifies land in Kenya as public, community or private. The Constitution thus provides for three types of tenure – public tenure, private tenure and communal tenure. These are defined in Article 62. Public land tenure refers to those lands that are owned by the public collectively as Kenyans including those registered in the name of public institutions.<sup>26</sup> Thus all land that is neither privately nor communally owned is deemed to be public land. Private land tenure refers to land owned, held and used and managed by private individuals and other private legal entities.<sup>27</sup> On the other hand, communal tenure refers to land that is held, managed and used by a given community.<sup>28</sup>

### **1.7.2: Security of Tenure**

Land tenure security refers to the degree of confidence that land users will not be arbitrarily deprived of the rights they enjoy over land and the economic benefits that flow from it; the certainty that an individual's rights to land will be recognized by others and protected in cases of specific challenges; or, more

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<sup>23</sup> Migai Akech, "Land, the Environment and the Courts in Kenya" (Environment and Land Law Reports, February 2006)

<sup>24</sup> Mather Alexander Smith, *Land Use*, Longman Group(FE) Limited, (1986)

<sup>25</sup> Olima W.H.A. and Obala L.M, 'The Effect of Existing Land Tenure Systems on Urban Land Development: A Case Study of Kenya's Secondary Towns, with Emphasis on Kisumu', (1998) Elsevier science limited

<sup>26</sup> Collins Odote, 'The Impact of The New Constitution of Kenya and the National Land Policy on Community Conservation Objectives in Kenya: A case Study of the Northern Rangelands Trust' (October, 2010), <[www.abcg.org/action/document/download?document\\_id=699](http://www.abcg.org/action/document/download?document_id=699)> accessed 23<sup>rd</sup> November 2015

<sup>27</sup> Ibid

<sup>28</sup> Ibid

specifically, the right of all individuals and groups to effective government protection against unlawful evictions.<sup>29</sup> Security of tenure is determined by, on the one hand, the constitutional rights guaranteed by a state to its citizens and, on the other, by the legal and administrative framework within that state.<sup>30</sup> This framework may include both customary and statutory systems and can be affected by the social norms and cultural values of a society.<sup>31</sup> Generally, tenure security is a complex entity, which provides protection to a household or individual against their involuntary removal from their house or land without due process of the law.<sup>32</sup>

It is important to note that secure land tenure is not the same as land rights. Land rights are those rights that exist in relation to a piece of land accruing to an individual or a variety of entities such as communities, clans, companies and the government.<sup>33</sup> Therefore, an individual may enjoy complete tenure security, but no rights to sell, develop, or sublet; whereas another may have limited security but be free to transfer their limited rights to others.<sup>34</sup> Due to this factor, land tenure continuum provides different sets of rights and degrees of security and responsibility. Basic land rights are divided into three elements:<sup>35</sup> *use rights* such as rights to grow crops, make permanent improvements, bury the dead etc; *transfer rights* such as the right to register, sell, give, mortgage, lease, rent and bequeath; *control rights* which includes rights to make decisions how land should be used. These are commonly referred to as “bundle of rights” or property rights in land.<sup>36</sup> These rights may be transferred or transmitted either together or individually at the discretion of the holder with or without limitations

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<sup>29</sup> UN Habitat, *Secure Land Rights for All* (2008) < <http://www.responsibleagroinvestment.org>, >accessed 26 February 2014

<sup>30</sup> Darshini Mahadevia, ‘Tenure Security and Urban Social Protection Links: India’ IDS Bulletin Volume 41 Number 4 (Blackwell Publishing Ltd, July 2010) < <http://agoralogin.research4life.org> > accessed 14th March 2014

<sup>31</sup> Ibid

<sup>32</sup> Ibid

<sup>33</sup> Kenya Human Rights Commission, *Women and Land Rights in Kenya*, (1998)

<sup>34</sup> UN Habitat, *Secure Land Rights for All* (2008) < <http://www.responsibleagroinvestment.org>, >accessed 26<sup>th</sup> February 2014

<sup>35</sup> Kenya Human Rights Commission, *Women and Land Rights in Kenya*, (1998)

<sup>36</sup> Ogolla, D. and Mugabe, J., ‘Land tenure systems and natural resources management’ in Juma C. and Ogwang J. B. (eds) *In Land We Trust: Environment, Private Property And Constitutional Change* (ACTS 1996)

depending on the tenure system.<sup>37</sup> The user and control rights signify the legal right and ability of a person, holding the tenure rights, to make decisions on how they can use their land to achieve their desired objectives.<sup>38</sup> Essentially, land tenure security could be achieved under a variety of land tenure arrangements along the tenure continuum with varying degrees of security and certainty of land rights. In this scenario, some users may have access to full use and transfer rights while others may be more legally limited in their use of these resources, thus illustrating the diversity of rights to land and the existence of a wide range of options, from full ownership to less singular forms of possession and use.

Security of tenure can either be legal, *de facto* tenure security or perceived tenure security each of which provides varying degrees of security. UN-Habitat argue that the spectrum ranges from one extreme of no *de facto* or *de jure* security, to the other end of the continuum, where those with legal and actual secure tenure can live happily without any real threat of eviction, particularly if they are wealthy or politically well connected.<sup>39</sup> According to Gelder legal tenure security refers to the legal status of tenure and its protection backed up by state authority underscoring the respect for rights and the possibility of their enforcement by the state in case of violation. Syagga wonders whether tenure security is a perception of legitimacy or legality noting that legitimacy refers to tenure regularization as opposed to legality, which refers to tenure legalization.<sup>40</sup>

Gelder defines *de facto* view of tenure security as based on the actual control of property, regardless of the legal status in which it is held.<sup>41</sup> He explains that *de facto* tenure security can best be defined by the elements that compose it or contribute to it, such as the length of time of occupation (the older a settlement,

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<sup>37</sup> Ibid

<sup>38</sup> Robert Machatha Kibugi, *Governing Land Use in Kenya: From Sectoral Fragmentation to Sustainable Integration of Law and Policy*, (Thesis University of Ottawa, 2011)

<sup>39</sup> UN Habitat, *Secure Land Rights for All* (2008) < <http://www.responsibleagroinvestment.org>, >accessed 26<sup>th</sup> February 2014

<sup>40</sup> Paul M. Syagga, 'Land Tenure in Slum Upgrading Projects', [http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul\\_Syagga\\_-\\_LAND\\_TENURE\\_IN\\_SLUM\\_UPGRADING.pdf](http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul_Syagga_-_LAND_TENURE_IN_SLUM_UPGRADING.pdf) accessed on 18th December 2013

<sup>41</sup> Jean-Louis van Gelder, What tenure security? The case for a tripartite view, *Land Use Policy*, Volume 27, Issue 2, [April 2010], Pages 449-456

the higher the level of legitimacy and protection); the size of the settlement (the larger, the more critical mass); and the level and cohesion of community organization (the better the organization, the higher the probability of a successful strategy of non-compliance).<sup>42</sup> Moreover, he notes that besides the characteristics intrinsic to a settlement, de facto tenure security is also generated by factors extrinsic to it, such as third-party support, the mobilization of media, political acceptance or administrative practices that lead to a de facto recognition of occupancy without the provision of rights.<sup>43</sup>

Land tenure security has a number of advantages; it is essential in stimulating the development of land since many local and foreign investors are hesitant to invest in land when tenure is insecure, it has the potential of increasing credit use through greater incentives for investment, enhancing the collateral value of land, facilitating land transfer from less efficient to more efficient users, reducing the incidence of land disputes and raising productivity through increased agricultural investment.<sup>44</sup> Chisholm argues that holders of secure, enforceable property rights in land have a strong incentive to protect and enhance the productivity of the resources because they can be confident that they will capture the value of the future services these will provide.<sup>45</sup>

To the urban poor access to land and security of tenure has been reported to have potential of increasing individual, household and community savings and expenditure towards improvement and development of homes thereby helping improve standards of living and the achievement of housing rights.<sup>46</sup> In addition, Amitabh Kundu has noted that perceived tenure security in slum colonies, besides prompting individuals to make investments, also facilitates community

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<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> Daniel Kwabena Twerefou, Eric Osei-Assibey and Frank Agyire-Tettey, 'Land Tenure Security, Investments and the Environment in Ghana, Journal of Development and Agricultural Economics Vol. 3(6), pp. 261-273, (June 2011) < <http://www.academicjournals.org/JDAE> > accessed 25 February 2014

<sup>45</sup> Chisholm A. H. "Land Use Choices in a Changing World" Land Degradation & Rehabilitation, Vol 5, 153-178 (1994)

<sup>46</sup> UN-Habitat, *Secure Land Rights for All*, (2008) <[www.responsibleagroinvestment.org](http://www.responsibleagroinvestment.org)> accessed 25 February 2014



organizations, NGOs and even private agencies to launch projects for improving basic amenities.<sup>47</sup> The widespread perception is that poor urbanites and squatters will take better care of their environment when they attain security of tenure.<sup>48</sup> Channell has argued that historically, environmental degradation is far greater in jurisdictions that do not allow for private or limited-access ownership.<sup>49</sup> In a study carried out in Ghana, Twerefou *et al*, found out that in the absence of secure tenure, residents had little incentive to maintain their dwellings or invest in improvements, thereby increasing the vulnerability of the area to floods, earthquakes, and other hazards.<sup>50</sup>

### 1.7.3: Land Use

The significant role land plays in a country's economic and socio-political wellbeing cannot be overemphasized. Indeed it is on land that all other natural resources become, a fact underscored by the Constitution that defines land to include; the surface of the earth and the subsurface rock; any body of water on or under the surface; marine waters in the territorial sea and exclusive economic zone; natural resources completely contained on or under the surface; and the air space above the surface.<sup>51</sup>

Chapin has argued that urban land use is a term used in at least three ways in contemporary planning literature.<sup>52</sup> Firstly, it means the spatial distribution of city functions – its residential areas, its industrial, commercial, and retail business districts, and the spaces set aside for institutional and leisure-time functions.<sup>53</sup> Secondly, it means a two-part framework for visualizing urban areas; first, in terms of activity patterns of people in the urban setting and their

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<sup>47</sup> Amitabh Kundu, 'Tenure Security, Housing Investment and Environmental Improvement: The Cases of Delhi and Ahmedabad, India' in Geoffrey Payne, *Land, Rights and Innovation*, (ITDG Publishing, 2002)

<sup>48</sup> Werlin, H, 'The Slum Upgrading Myth', *Urban Studies*, (1999) vol. 36, no. 9, pp. 1523-34.

<sup>49</sup> Wade Channell, 'Land Tenure and Environmental Degradation'; < egateg.usaid.gov>

<sup>50</sup> Janis D. Bernstein, *Land Use Considerations in Urban Environmental Management*, (Urban Management Programme World Bank, 1994)

<sup>51</sup> Constitution of Kenya Article 260

<sup>52</sup> Stuart Chapin F. Jr., *Urban Land Use Planning* (2<sup>nd</sup> edition), University of Illinois Press, (1965)

<sup>53</sup> Ibid

institutions as they require space (for example, activities involved in earning a living, shopping, following leisure pursuits), and second, in terms of physical facilities or improvements to the land in the urban setting which are made to accommodate those activity patterns (that is, the functional land use identified above). Lastly, land use also involves devotion to the role that value systems of people play as they regulate space using activities and thence the use patterns which emerge.<sup>54</sup>

In summary, land use comprises any arrangement, activity or instrumentality, which produces change in or maintains the conditions of existing land use cover as long as these are human induced. Such inducement may be a direct or indirect, express or implied or incidental, result of some other action or policy. It is through land use that the important services provided by land can be realized.

## **1.8: Analytical Framework**

### **1.8.2: Theoretical Framework**

The social relations theory as it relates to property provided the theoretical framework for this study. The theory of social relations concerns itself with the concepts of consciousness of individuals and consciousness as social.<sup>55</sup> Consciousness is always and only the consciousness of individuals; it is embedded in the actual activities of people, in their social relationships, and in economic and technological level of development through which individuals subsist.<sup>56</sup> On the other hand, consciousness as social implies that, it exists among people through the materiality of language, embodies ideas, principles, law, moral and religious beliefs, which are created in the context of actual social existence as it is lived.<sup>57</sup>

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<sup>54</sup> Ibid

<sup>55</sup> Dorothy E. Smith, 'Ideology, Science and Social Relations; A Reinterpretation of Marx's Epistemology' *European Journal of Social Theory* 7(4): 445–462, 2004

<sup>56</sup> Ibid

<sup>57</sup> Ibid

This theory, which is part of legal realism, examines the role property rights play in structuring social relations and the way social relations shape access to property.<sup>58</sup> It sees property rights as deriving from society and reflecting the agreement of society to enable the holder of the right to act in a particular manner without any interference from other members of society as long as the manner of acting is one which is not excluded from the content of his rights.<sup>59</sup> Gray *et al.* argue that the ‘absolutist’ view of property, the passionate and instinctive belief that ownership is unqualified, sacrosanct and inviolable, should be abandoned and the adoption of a more ‘relativist’ perception that entitlement of property are actually defined and redefined by competing rights, by social context and by community-directed obligation.<sup>60</sup>

Property is a socially constructed concept. These social relations make up and are shaped by a pattern of rights, duties, privileges, powers, etc., which control the behavior of individuals or groups in relation to one another and to the custody, possession, use, enjoyment, disposal, etc., of various classes of objects.<sup>61</sup> Based on Hohfeld’s account of jural relations, each such relation consists of four basic components: the person or group of persons holding an entitlement; the person or group of persons occupying the position correlative to the entitlement; the form of the relation (i.e. whether it is, say, a right-duty relation or a power-liability relation); and the content thereof (the specification of the right-duty relation).<sup>62</sup>

The bundle of rights idea highlights the different components that make up property such as the right to use, dispose of, and inherit. Honoré’ widely endorsed the conception of property as a “bundle of rights.” Honoré argues that this bundle consists of eleven “sticks” or “incidents”: *rights* to possess, use, manage, receive income from, consume or destroy, be secure in ownership of

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<sup>58</sup> Collins Odote, *Regulating Property Rights to ensure Sustainable Management of Wetlands in Kenya*, (Thesis University of Nairobi, 2010)

<sup>59</sup> Ibid

<sup>60</sup> Kevin Gay, Susan Francis Gray and Nicola Padfield, *Land Law*, (Lexis Nexis UK, 2003)

<sup>61</sup> Pedersen, J.M. (2010) ‘Properties of Property: A Jurisprudential Analysis’, *The Commoner*, Special Issue, Volume 14, Winter 2010, 137-210.

<sup>62</sup> Ibid

and transfer one's property, as well as to have these rights persist over time; along with *duties*, not to use one's property harmfully; to be liable to dissolution of ownership in cases of debt or insolvency, and to respect any residual entitlements others may have in one's property.<sup>63</sup> As such, the purchase of a bundle of rights in land necessarily includes the acquisition of a bundle of limitations.<sup>64</sup>

Property in land correlates with varying degrees of socially approved power exercisable over the resource of reality and distinct quantum of 'property' in the same land can be distributed simultaneously amongst a number of persons and entities.<sup>65</sup> Therefore, because property rights determine the social relations amongst entities, different property rights regimes will have various ways to arrange and govern the various aspects of the bundle of rights called property and thus ascribe differently values to the property institution.<sup>66</sup> Based on this theory, existing social institutions are able to distribute fundamental rights and duties relating to land tenure to the urban poor living in informal settlements through an appropriate policy and legal system that defines the responsibilities and duties of the land occupiers. These social institutions, particularly under the national and county government should use the land managements powers of eminent domain and police power as provided in existing land laws to in addition to improving tenure security, moderate the three land use determinants – economic determinants, socially rooted determinants and public interest - towards sustainable land use in the informal settlements. The tentative hypothesis is that they have not been able to deliver these rights and duties hence the continued prevalence of insecure tenure that may affect negatively the informal residents' decisions on land use.

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<sup>63</sup> Honoré, A.M. "Ownership." In *Oxford Essays in Jurisprudence: A Collaborative Work*, edited by A.G. Guest, 107–147. Oxford University Press, 1961.

<sup>64</sup> Kevin Gay, Susan Francis Gray and Nicola Padfield, *Land Law*, (Lexis Nexis UK, 2003)

<sup>65</sup> Ibid

<sup>66</sup> Collins Odote, *Regulating Property Rights to ensure Sustainable Management of Wetlands in Kenya*, (Thesis University of Nairobi, 2010)

### 1.8.3: Conceptual Framework

Actions by the poor which directly results in gaining access to a plot of land, whether by legal, non-legal or illegal means creates a situation in which invariably, the poor are seen to be using the land.<sup>67</sup> Due to continuous use of the land, they gradually gain a modicum of rights to the land that need not be prescribed by law, notwithstanding the fact that many traditional legal systems recognize the user of a plot of land as gradually accumulating claims of ownership simply by the fact of continuous use.<sup>68</sup> Based on their continuous use of the land, particularly for shelter, which is both a basic need and an essential means for continued income, the urban poor are continuously recognizing the common need to stay on the land and to organize politically to strengthen their claims for continued use, regardless of its legal basis.<sup>69</sup> Working on the understanding that those within the informal settlements will be there for quite some time, a fundamental issue touching on their environmental right to a clean and healthy environment arises based on the existing precarious environmental conditions.

Because those living in informal settlement do not have their rights to land and property secured, they are less likely to engage in any deliberate effort to conserve and protect both their immediate environment and any other natural resource therein. Sims argue that adequate security of tenure is measured by a five point criteria in which one looks at the extent to which such tenure; protects against arbitrary eviction/demolition; encourages investment and house improvements; allows for the provision of infrastructure and public services; permits market values to apply to property; and allows owners to leverage equity for credit.<sup>70</sup> Therefore, with the prevailing insecure tenure, urban dwellers in the informal settlements lack incentives to engage in sustainable land use. The result

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<sup>67</sup> UN Habitat, *Land for Housing*, (United Nations Centre for Human Settlements)

<sup>68</sup> Ibid

<sup>69</sup> Ibid

<sup>70</sup> Geoffrey Payne (ed), *Land, Rights & Innovation: Improving Tenure Security for the Urban Poor*, (ITDG Publishing, 2002)

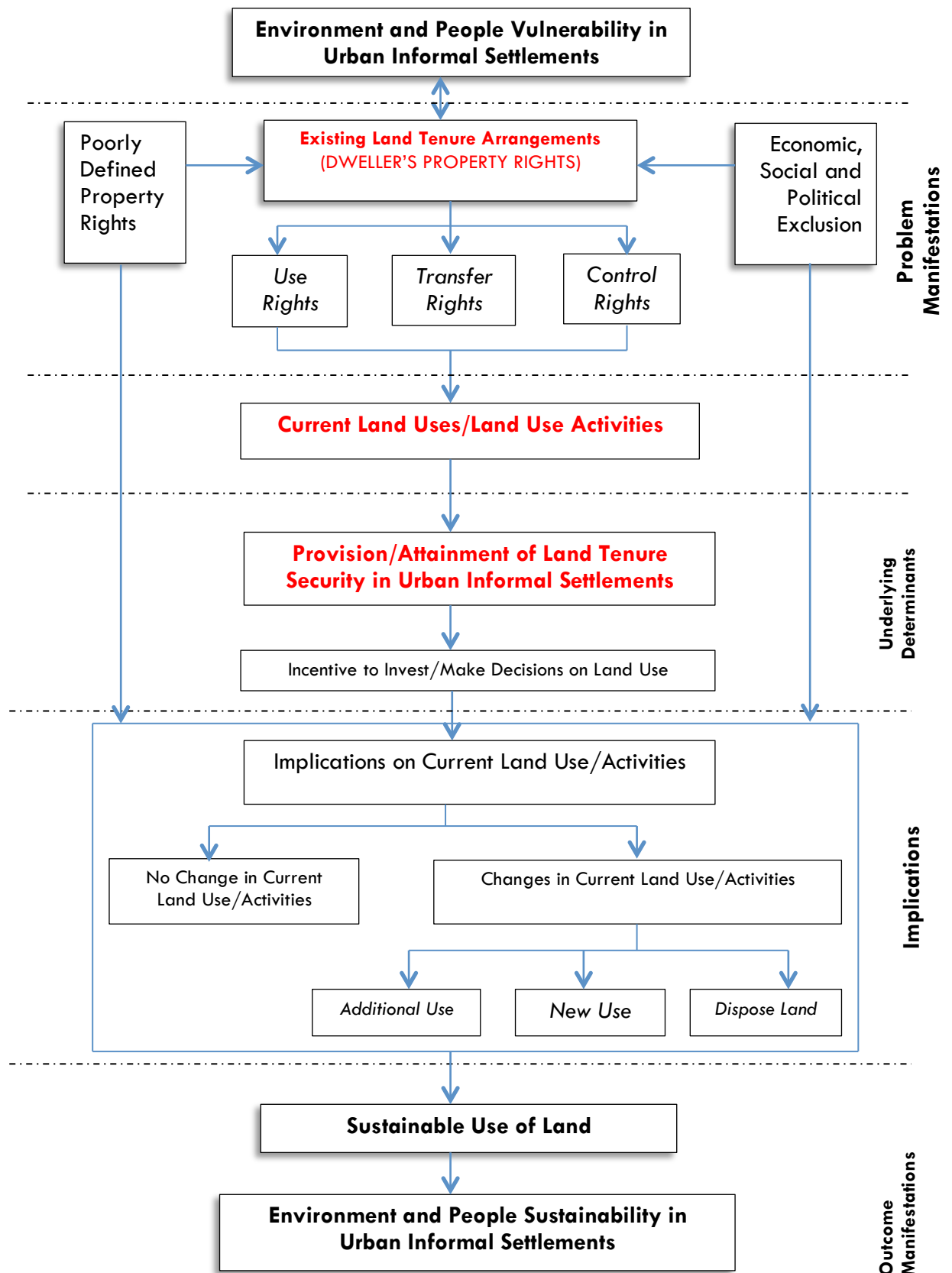
is a degraded environment as they strive to earn a living while using the natural resources around them unsustainably.

Therefore, by investigating whether improved tenure security has any implications on sustainable urban land use decisions/actions taken by the residents of these informal settlements, remedial policy initiatives are therefore likely to be advanced with more certainty. Procedures towards securing property rights, land rights and environmental rights of the urban poor ultimately leads to achievement of environmental justice through which people's right to participate as equal partners at every level of decision making, including needs assessment, planning, implementation, enforcement and evaluation of environmental sustainability measures is buttressed.<sup>71</sup> Figure 1 illustrates this conceptual framework.

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<sup>71</sup> See The Principles of Environmental Justice (EJ), First National People of Color Environmental Leadership Summit held on October 24-27, 1991, in Washington DC < [www.ejnet.org/ej/principles.pdf](http://www.ejnet.org/ej/principles.pdf) > accessed 11<sup>th</sup> March 2014

Figure 1: Conceptual Framework



Source: Author's Construct 2015

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1: Overview**

Literature review exercise undertaken during this study not only helped in the contextualization of the research problem, but also contributed in firming up discussions arising from the research findings. The materials reviewed were bounded by the main objective of this study, which was geared towards finding out the underlying relationships between land tenure security and sustainable land use within informal settlements. This review has been organized into two broad categories namely: literature review on key themes including; literature on the challenge of informal settlements in Nairobi, the link between land tenure and land use generally, land use regulation for sustainable environmental management and literature review on environmental and land policy and legal framework.

#### **2.2: Literature Review on Key Study Themes**

##### **2.2.1: Challenge of Informality in Human Settlements**

Unabated urbanization and high incidence of unemployment and urban poverty have contributed to shortages of basic urban services such as water supply and sanitation, drainage and sewerage and has also resulted in the proliferation of informal settlements. There has been a lot of effort both at the global, regional and even local context towards documenting the challenge of informal settlement proliferation. Globally, publications by World Bank and UN-Habitat have played a major role in informing the current study. One such publication is UN-Habitat's *The Challenge of Slums*.<sup>1</sup> This report presents the results of the first global assessment of slums by the United Nations since the adoption of the Millennium Declaration. The report proposes an operational definition of slums and, on this basis, provides the first global estimates of the numbers of urban

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<sup>1</sup> UN-Habitat, *The Challenge of Slums*; (2003) < [www.unhabitat.org](http://www.unhabitat.org) > accessed 25<sup>th</sup> February 2014



slum dwellers in addition to discussing the local, national and international factors underlying the formation of slums. Indeed, this study adopted the use of the term ‘informal settlement’ instead of ‘slum’. The arguments for this have already been discussed in Chapter 1. Moreover, the report analyses the social, spatial and economic characteristics and dynamics of slums.<sup>2</sup> Fundamentally, the report notes that almost 1 billion people, or 32 per cent of the world’s urban population, live in slums, the majority of them in the developing world.<sup>3</sup> Other publications by the United Nations that were used to contextualize the challenge of informal settlements included: *The Millennium Development Goals Report 2012*,<sup>4</sup> ‘What are slums and why do they exist’,<sup>5</sup> and *State of the World’s Cities 2006/2007*.<sup>6</sup> Generally, these publications argue that informal settlements are majorly a problem in developing nations mainly due to rapid urbanization and that without concerted efforts to ameliorate the current situation, more people living in such settlements will continue to live under poor and unsustainable environments.

The Millennium Development Goals Report indicates that three important MDG targets have been met well ahead of the target date of 2015.<sup>7</sup> One of the targets met is target 7.D.<sup>8</sup> Target 7D is one of the four targets under Goal 7, which seeks to Ensure Environmental Sustainability. Specifically, Target 7.D seeks to achieve, by 2020, a significant improvement in the lives of at least 100 million slum dwellers. It is reported that the share of urban residents in the developing world living in slums declined from 39 per cent in 2000 to 33 per cent in 2012; that more than 200 million gained access to either improved water sources, improved sanitation facilities, or durable or less crowded housing.<sup>9</sup> The report

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<sup>2</sup> Ibid

<sup>3</sup> Ibid

<sup>4</sup> United Nations, *The Millennium Development Goals Report 2012*, (2012) < <http://www.un.org> > ; accessed 25<sup>th</sup> February 2014

<sup>5</sup> UN Habitat, ‘What are slums and why do they exist?’ (2007) < [www.unhabitat.org](http://www.unhabitat.org) > accessed 20<sup>th</sup> February 2014

<sup>6</sup> UN-Habitat, *State of the World’s Cities 2006/2007* (2006) < [www.unhabitat.org](http://www.unhabitat.org) > accessed 25<sup>th</sup> February 2014

<sup>7</sup> United Nations, *The Millennium Development Goals Report 2012* (2012) < <http://www.un.org> > ; accessed 20<sup>th</sup> February 2014

<sup>8</sup> Ibid

<sup>9</sup> Ibid

therefore concludes that this achievement exceeds the target of significantly improving the lives of at least 100 million slum dwellers, well ahead of the 2020 deadline.<sup>10</sup> Nonetheless, the report hastens to warn that despite a reduction in the percentage of urban population living in slums, the absolute number of slum dwellers continues to grow fed by an accelerating pace of urbanization; 863 million people are now estimated to be living in slums compared to 650 million in 1990 and 760 million in 2000.<sup>11</sup> The achievement of the MDG target therefore does not lessen the need to improve the lives of the urban poor and to curb the increase in numbers of slum dwellers. Indeed it is important to note that the need to continue with initiatives towards improvement of living conditions in informal settlements has been recognized under goal 11 of the recently launched Sustainable development Goal (SDG). Specifically, target 11.1 provides that, by 2030, countries should ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.<sup>12</sup>

Indeed a survey done in the early 1970s in Mathare Valley advised on the need to recognize informal settlements by facilitating a two-way communication to enable the authorities to respond to the needs of low-income families living in urban areas and move away from the ‘national pride’ syndrome which rejects modest housing solutions, yet no alternatives are proposed.<sup>13</sup> This study by University of Nairobi Housing Research Unit (HABRI) further proposed a raft of measures touching on policy. Firstly, it recommended that policy adopted should seek to reduce the causes of uncontrolled urban settlement. Under this proposal, they found out that the main causes of uncontrolled urban settlement are rural-urban migration, population growth, urban unemployment and the acute shortage of housing and that rural urban migration could only be reduced by offering economic alternatives to subsistence farming. Secondly, the study

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<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> See detailed discussion on all the goals in United Nations, ‘Transforming our world: the 2030 Agenda for Sustainable Development’ (2015) <  
<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>> accessed 24 November 2015

<sup>13</sup> David Etherton, *Mathare Valley – A Case Study of Uncontrolled Settlements in Nairobi*, (Housing Research and Development Unit University of Nairobi, 1971)

recommended the need for policy to deal with existing areas of uncontrolled settlements by among others providing a bridgehead for those trying to find a footing in the city, regularizing areas of uncontrolled development, demolishing deteriorating areas only after alternative accommodation is made available and encouraging movement to improved areas. Other recommendations touched on facilitating access to organizational resources, financial resources and technical resources.

Other publications that document the challenge of informal settlements in Kenya and especially in relation to their origin and proliferation include publications by Mittulah,<sup>14</sup> Olima,<sup>15</sup> Agwanda.<sup>16</sup> For example, Mittulah argues that informal settlements owe their origin to six factors: migration during the struggle for independence, rural-urban migration and urban population growth without corresponding housing provision, resettlement due to new developments, upgrading or relocation in suitable sites, and extension of city boundaries.<sup>17</sup>

Olima, on the other hand notes that in Nairobi, the formation of slums can be traced back to the pre-independence period.<sup>18</sup> During this period the urban layout was based on government-sanctioned population segregation into separate enclaves for Africans, Asians and Europeans during which, slums essentially developed because of the highly unbalanced allocation of public resources towards the housing and infra-structural needs of the separate sections.<sup>19</sup> This proposition by Olima is further supported by Pamoja Trust and Shack/Slum

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<sup>14</sup> Winnie Mittulah, 'Nairobi, Kenya' in Understanding Slums: Case Studies for the Global Report 2003, <[http://www.ucl.ac.uk/dpu-projects/Global\\_Report/cities/nairobi.htm](http://www.ucl.ac.uk/dpu-projects/Global_Report/cities/nairobi.htm)>; accessed 20<sup>th</sup> February 2014

<sup>15</sup> Washington H.A. Olima, 'The Dynamics and Implications of Sustaining Urban Spatial Segregation in Kenya: Experiences from Nairobi Metropolis' (2001) <[www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf](http://www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf)>

<sup>16</sup> Agwanda Otieno T.M, 'Factors Affecting House Improvement In The Informal Settlements. A Case Study of Manyatta Settlement In Kisumu Municipality Kenya', (Unpublished Thesis University of Nairobi. 1997)

<sup>17</sup> Winnie Mittulah, 'Nairobi, Kenya' in Understanding Slums: Case Studies for the Global Report 2003, <[http://www.ucl.ac.uk/dpu-projects/Global\\_Report/cities/nairobi.htm](http://www.ucl.ac.uk/dpu-projects/Global_Report/cities/nairobi.htm)>; accessed 20<sup>th</sup> February 2014

<sup>18</sup> Washington H.A. Olima, 'The Dynamics and Implications of Sustaining Urban Spatial Segregation in Kenya: Experiences from Nairobi Metropolis' (2001) <[www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf](http://www.begakwabega.com/documenti/dynamics-implications-urban-segregation.pdf)>

<sup>19</sup> Ibid

Dwellers International who have argued that after independence, the colonial government bequeathed, to newly independent Kenya, a set of land laws and urban planning standards that were unable to reverse the inequitable colonial land distribution.<sup>20</sup>

Similarly, Agwanda argues that the formation of informal settlements proceeds in widely differing historical, cultural and economic as well as institutional contexts and can fall under five key arrangements; settlement on customary land; invasion; accretion; alienation of government or public land; and informal commercial arrangements.<sup>21</sup> These five thematic arrangements define the character of informal settlements in Kenya and indeed explain the growth and the mode of approach adopted by various players in their eradication, upgrading or prevention.

From the above literature reviewed, it was clear that there is considerable literature documenting the challenges facing informal settlements. These challenges are however presented in a generalized form with no specific reference to the role of tenure security on sustainable land use in the informal settlements. Essentially, the only publication with insights into the current problem that the researcher sought to address is Karisa's article on *a Negotiated Framework for Rehabilitation of Riparian Zones in Nairobi City: the case of Mathare River Valley*.<sup>22</sup> In this publication, Karisa discusses the impact of the current land uses in Mathare informal settlement on Mathare River Valley.<sup>23</sup> However, even in this article, there is no exposition of the existence of a link between land tenure security and sustainable land use. Based on these propositions, a clear case was established for further research on informal

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<sup>20</sup> Pamoja Trust and Shack/Slum Dwellers International, *Nairobi Slum Inventory*, (Pamoja Trust, Urban Poor Fund International and Shack/Slum Dwellers International, Nairobi, 2008) <[www.irinnews.org/pdf/nairobi\\_inventory.pdf](http://www.irinnews.org/pdf/nairobi_inventory.pdf)>

<sup>21</sup> Agwanda Otieno T.M, 'Factors Affecting House Improvement In The Informal Settlements. A Case Study of Manyatta Settlement In Kisumu Municipality Kenya', (Unpublished Thesis University of Nairobi. 1997)

<sup>22</sup> Karisa Charles, 'A Negotiated Framework for Rehabilitation of Riparian Zones in Nairobi City: the case of Mathare River Valley', 46th ISOCARP Congress (2010) < [www.isocarp.net](http://www.isocarp.net) > accessed 25<sup>th</sup> February 2014

<sup>23</sup> Ibid

settlements with the current study limiting itself to aspects of land use sustainability in respect to tenure arrangements.

### 2.2.2: Land Tenure in Informal Settlements

Various commentators have defined land tenure to refer to the terms and conditions under which rights to land and land-based resources are acquired, retained, used, disposed of, or transmitted have defined Land tenure.<sup>24</sup> In his book, *Land Law and Conveyancing in Kenya*, Onalo argues that land ownership embodies a bundle of various rights including right of sale, of possession, of *usufructus*, of lease, the rights to charge and create easements and the right to keep out strangers.<sup>25</sup> In its publication on *Women and Land Rights in Kenya*, the Kenya Human Rights Commission has argued that basic land rights are divided into three elements including use rights, transfer rights and control rights.<sup>26</sup> On the other hand, Ogolla, and Mugabe have argued in their article on *Land Tenure Systems and Natural Resources Management*, that these rights are commonly referred to as “bundle of rights” or property rights in land and may be transferred or transmitted either together or individually at the discretion of the holder with or without limitations depending on the tenure system.<sup>27</sup>

With reference to informal settlements, literature reviewed has indicated that land tenure as a stand alone concept may not mean much to the urban poor in these informal settlements. Of much importance especially in crafting tenure policies for the urban poor should not be much the type of tenure adopted but the security associated with that particular tenure system. Indeed, Fourie advises

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<sup>24</sup> See Ogolla, D. and Mugabe, J., ‘Land tenure systems and natural resources management’ in Juma C. and Ojwang J. B. (eds) *In Land We Trust: Environment, Private Property And Constitutional Change* (ACTS 1996); Olima W.H.A. and Obala L.M., ‘The Effect of Existing Land Tenure Systems on Urban Land Development: A Case Study of Kenya’s Secondary Towns, with Emphasis on Kisumu’, (Elsevier science limited, 1998); Kenya Human Rights Commission, *Women and Land Rights in Kenya*, (1998); Patricia Kameri-Mbote, ‘Land Tenure and Sustainable Environmental Management in Kenya’, in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East Africa Eduvational Publishers LTD, 2008)

<sup>25</sup> P.L. Onalo, *Land Law and Conveyancing in Kenya*, (LawAfrica Publishing (K) Ltd., 2008)

<sup>26</sup> Kenya Human Rights Commission, *Women and Land Rights in Kenya*, (1998)

<sup>27</sup> Ogolla, D. and Mugabe, J., ‘Land tenure systems and natural resources management’ in Juma C. and Ojwang J. B. (eds) *In Land We Trust: Environment, Private Property And Constitutional Change* (ACTS 1996)

that to study informal settlement land tenure systems, one must move away from the narrow legalistic definition of land tenure being something which is automatically legal, to one which accommodates both legal and illegal land tenure systems and the continuum between them.<sup>28</sup> UN-Habitat in its publication on *Secure Land Rights for All*, notes that security of tenure which is a basic attribute of human security has continued to remain extremely fragile for hundreds of millions of the urban poor and has continued to deteriorate as land values within cities continue to rise, as affordable land becomes increasingly scarce, and as housing solutions are increasingly left to market forces.<sup>29</sup>

Therefore, a number of other publications, which have articulated the concept of tenure security in informal settlements, were reviewed. One such publication is by Mahadevia who has written about tenure security and urban social protection links in India, noting that tenure security is a complex entity, which provides protection to a household or individual against their involuntary removal from their house or land without due process of the law.<sup>30</sup> Gelder argues for a tripartite view of tenure security in informal settlements noting that security of tenure can either be legal, de facto tenure security or perceived tenure security each of which provides varying degrees of security.<sup>31</sup> This argument is supported by UN-Habitat who argue that the spectrum of tenure security ranges from one extreme of no *de facto* or *de jure* security, to the other end of the continuum, where those with legal and actual secure tenure can live happily without any real threat of eviction, particularly if they are wealthy or politically well connected.<sup>32</sup>

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<sup>28</sup> Clarissa Fourie, 'The role of local land administrators: An African perspective', Land Use Policy Volume 15, Issue 1, [January 1998], Pages 55–66, <[http://dx.doi.org/10.1016/S0264-8377\(97\)00040-9](http://dx.doi.org/10.1016/S0264-8377(97)00040-9)>

<sup>29</sup> UN Habitat, *Secure Land Rights for All* (2008) < <http://www.responsibleagroinvestment.org>, >accessed 26<sup>th</sup> February 2014

<sup>30</sup> Darshini Mahadevia, "Tenure Security and Urban Social Protection Links: India" IDS Bulletin Volume 41 Number 4 (Blackwell Publishing Ltd, July 2010) < <http://agoralogin.research4life.org> > accessed 14th March 2014

<sup>31</sup> Jean-Louis van Gelder, What tenure security? The case for a tripartite view, Land Use Policy, Volume 27, Issue 2, [April 2010], Pages 449-456

<sup>32</sup> UN Habitat, *Secure Land Rights for All* (2008) < <http://www.responsibleagroinvestment.org>, >accessed 26<sup>th</sup> February 2014

### 2.2.3: Sustainable Land Use

Literature reviewed herein sought to decipher the links between land tenure and its impacts on sustainable use of land. One of the key publications was *Land Use Law for Sustainable Development* containing a compilation of articles by various authors and edited by Nathalie J. Chalifour, Patricia Kameri-Mbote, Lin Heng Lye and John R. Nolon. Generally, this book surveys the global experience in the implementation of land use policies that move towards the sustainable development continuum. Firstly, Kameri-Mbote's article on *Land Tenure, Land Use, and Sustainability in Kenya: Toward Innovative use of Property Rights in Wildlife Management*, illustrates the possibility of a relationship between land tenure and land use. While noting that private property right regimes are believed to create incentives for the management of resources, Kameri-Mbote contends that such private property rights may also encourage the erosion of the resource.

Secondly, Ladan's article on *Environmental Law and Sustainable Land Use in Nigeria* argues that the development of land use systems that meet the needs of present and future generations without causing environmental degradation remains one of the major challenges confronting societies today.<sup>33</sup> On the other hand, Morishima argues that unlike conventional jurisprudence in land use that deals with individual human beings and property thus regulating only the activities of land users mainly composed of land owners; Environmental law offers a unique opportunity and new jurisprudence that covers all stakeholders whose activities have impacts on the environment – these include national and local governments, business and companies, non-governmental organizations and citizens.<sup>34</sup> Such laws become important in what Kaiser *et all.* refer to as 'land planning game' where various land use stakeholders are continually in

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<sup>33</sup> Muhammed Tawfiq Ladan, 'Environmental Law and Sustainable Land Use in Nigeria' in Nathalie J. Chalifour, Patricia Kameri-Mbote, Lin Heng Lye and John R. Nolon (ed), *Land Use Law for Sustainable Development*, (Cambridge university Press 2007)

<sup>34</sup> Akio Morishima, 'Challenges of Environmental Law; Environmental Issues and their Implications to Jurisprudence' in Nathalie J. Chalifour, Patricia Kameri-Mbote, Lin Heng Lye and John R. Nolon (ed), *Land Use Law for Sustainable Development*, (Cambridge university Press 2007)

conflict, causing inherent tension.<sup>35</sup> Thus the whole body of environmental law – constitutional provisions, laws, regulations, planning powers and decision process – seek to protect overall public interest from extremes of unregulated maximization of market, social or environmental values.<sup>36</sup>

Kameri-Mbote's article on *Land Tenure and Sustainable Environmental Management in Kenya*; emphasizes that mediating the rights of different property owners and different forms of ownership of land is a critical component of sustainable environmental management.<sup>37</sup> That these rights are not absolute, since there are rules that govern the manner in which the person with the tenure is to utilize their rights.<sup>38</sup> Abrams article on *Urban Land Problems and Policies* was germane as it identifies about five public purposes for which land use controls exist namely; to guide the *use* of land to promote the advantageous development of the community; (b) curb the *misuse* of land so that it will not injuriously affect the interests of the community; (c) prevent the *abuse* of land; (d) regulate the *nonuse* or *disuse* of land and (e) guide the *reuse* of land for more appropriate purposes.<sup>39</sup>

Another significant publication was *Land tenure Systems and Natural Resources Management*.<sup>40</sup> In this article, Ogolla and Mugabe argue that since land tenure determines access to land and the environmental resources linked to it, it is a critical variable in the management and conservation of the environment.<sup>41</sup> This notion is further supported by Kameri-Mbote who notes that land tenure defines the range of persons controlling and managing resources found on that land and

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<sup>35</sup> Edward J. Kaiser, David R. Godschalk, and Stuart Chapin F. Jr., *Urban Land Use Planning* (4<sup>th</sup> edition), University of Illinois Press, (1995)

<sup>36</sup> Ibid

<sup>37</sup> Patricia Kameri-Mbote, 'Land Tenure and Sustainable Environmental Management in Kenya', in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East Africa Eduvational Publishers LTD, 2008)

<sup>38</sup> ibid

<sup>39</sup> Charles Abrams et al., *Urban Land Problems and Policies*, Housing and Town and Country Planning Bulletin 7, United Nations, (1953) as quoted by Stuart Chapin F. Jr., *Urban Land Use Planning* (2<sup>nd</sup> edition), University of Illinois Press, (1965)

<sup>40</sup> Ogolla, D. and Mugabe, J., 'Land tenure systems and natural resources management' in Juma C. and Ojwang J. B. (eds) *In Land We Trust: Environment, Private Property And Constitutional Change* (ACTS 1996)

<sup>41</sup> Ibid



the form of land management to apply to the land in question.<sup>42</sup> Thus, since land as an ecosystem and habitat plays host to numerous species, the holder of any quantum of rights in land has a role to play in the management of environmental resources therein.<sup>43</sup>

Other publications reviewed related to impacts of tenure on land use in informal settlements in other jurisdictions outside Kenya.<sup>44</sup> Based on these articles, there is presence of perception among informal settlement dwellers that secure tenure or possibility of tenure being secure, enables them invest considerable amounts of savings, labour, creativity and organizational energies in building houses and improving their living environment. Nonetheless, the veracity of this assertion in relation to sustainable land use in Mathare River Valley informal settlements still needs to be ascertained thus the need for this study.

One of the few articles espousing the existence of link between land tenure and land use in informal settlements in Kenya is Kibwana's article on *Land Tenure, Spontaneous Settlement and Environmental Management in Kenya*.<sup>45</sup> In this article, Kibwana conceptualizes spontaneous settlement as one of the land uses and then looks at the impact of such a land use on the environment with specific emphasis on investigating whether spontaneous settlements or squatting can be

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<sup>42</sup> Patricia Kameri-Mbote, 'Land Tenure and Sustainable Environmental Management in Kenya', in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East Africa Educational Publishers LTD, 2008)

<sup>43</sup> Ibid

<sup>44</sup> See Erica Field, "Property Rights and Investment in Urban Slums" *Journal of the European Economic Association* Volume 3, Issue 2-3, (December 2010) p. 279 <<http://agoralogin.research4life.org>> accessed 14th March 2014; Amitabh Kundu, "Tenure Security, Housing Investment and Environmental Improvement: The Cases of Delhi and Ahmedabad, India" in Geoffrey Payne, *Land, Rights and Innovation*, (ITDG Publishing, 2002); Daniel Kwabena Twerefou, Eric Osei-Assibey and Frank Agyire-Tettey, 'Land Tenure Security, Investments and the Environment in Ghana, *Journal of Development and Agricultural Economics* Vol. 3(6), pp. 261-273, (June 2011) <<http://www.academicjournals.org/JDAE>> accessed 25<sup>th</sup> February 2014; Johnie Kodjo Nyametso, 'Improvement of Squatter Settlements: The Link Between Tenure Security, Access to Housing, And Improved Living and Environmental Conditions', A Thesis Submitted For the Degree of Doctor Of Philosophy at The University of Otago, Dunedin, New Zealand, (2010) <<http://www.devnet.org.nz>>

<sup>45</sup> Kivutha Kibwana, "Land Tenure, Spontaneous Settlement and Environmental Management in Kenya" in Smokin C. Wanjala (ed), *Essay on Land Law: The Reform Debate in Kenya*, Faculty of Law, University of Nairobi, (2000) Pg. 105

compatible with sound environmental management.<sup>46</sup> Kibwana thus argues that the problem of environmental mismanagement within the spontaneous settlements ensues largely because they have not been targets of land planning policy, law and activity.<sup>47</sup>

#### **2.2.4: Regulating Land Use for Sustainable Environmental Management**

At the global stage, one of the key publications that this study referred to that discusses the link between property rights on land and environmental management through land use control is a book by Ellen Frankel Paul on *Property Rights and Eminent Domain*.<sup>48</sup> In this book, *inter alia*, the author examines arguments of environmentalists in support of land use legislation with specific reference to the exercise of eminent domain and police powers by the State.

Therefore, the role of the State in facilitating the regulation of the responsibility of right holders was another area of concern. Various literature reviewed indicates that the State has two residual powers that facilitate its regulation of property rights, namely: police power (development control) and eminent domain (compulsory acquisition). Eminent domain refers to the right of the state by dint of sovereignty to take private property for public purposes and flows from the fact that the state has radical title over all land in the territory and can therefore compulsorily.<sup>49</sup> Kameri-Mbote defines police power to refer to the power of the state to regulate land use in the public interest and argues that it may be invoked to secure proper environmental management.<sup>50</sup>

Moreover, it has been argued that the rights, powers, privileges and immunities of the right holder are determined by the scope of police power and there is no

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<sup>46</sup> Ibid

<sup>47</sup> Ibid

<sup>48</sup> Ellen Frankel Paul, *Property Rights and Eminent Domain*, (Transaction Publishers, 1987)

<sup>49</sup> Patricia Kameri-Mbote, 'Land Tenure and Sustainable Environmental Management in Kenya', in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East Africa Educational Publishers LTD, 2008)

<sup>50</sup> Ibid

such thing as absolute proprietorship.<sup>51</sup> Further, on police power, Mumma argues that the legitimate exercise of this power and the confiscation of the rights is a matter of degree of damage where, if the restrictions involved can be considered reasonable, the exercise of police power is valid and the damage suffered by the individual is simply an incidental consequence of an otherwise valid action.<sup>52</sup>

That the state can take property compulsorily because the property is needed for a purpose that is useful to the public, and restricts use of property under police power where such use is harmful to the public.<sup>53</sup> This argument is supported by Wright who notes that the control of land under the police power and all other peripheral considerations which enter into a reconciliation of the legality or illegality of particular controls in specific situations come down to a single set of factors – reasonableness or the lack of it; arbitrariness, or lack of it; or doubt as between the two, which generally sustains the governmental determination.<sup>54</sup>

In informal settlements, existing literature indicate that intense and often irresponsible use of land occurs because, among others, the settlers expect imminent eviction.<sup>55</sup> In his conclusion, Kibwana argues that Kenya's environmental law tends to be linked to ownership of land where an occupier does not have legal rights to land, environmental law cannot reach him/her sufficiently to control environmental degradation.<sup>56</sup> Nevertheless, this proposition no longer hold especially in light of the Constitution of Kenya Article 66 (1) which provides that the State may regulate the use of any land, or any interest in or right over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning. Thus the state

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<sup>51</sup> Ibid

<sup>52</sup> Albert Mumma, 'The Continuing Role of Common Law in Sustainable Development', in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East Africa Eduvational Publishers LTD, 2008)

<sup>53</sup> Ibid

<sup>54</sup> Robert R. Wright, *Land Use in a Nutshell*, (1994)

<sup>55</sup> Kivutha Kibwana, "Land Tenure, Spontaneous Settlement and Environmental Management in Kenya" in Smokin C. Wanjala (ed), *Essay on Land Law: The Reform Debate in Kenya*, Faculty of Law, University of Nairobi, (2000) Pg. 105

<sup>56</sup> Ibid

has a legitimate responsibility to exercise land use control powers in its possession to ensure sustainable land use within the informal settlements.

## **2.3: Literature Review on Policy and Legal Framework**

### **2.3.1: International and Regional Law relating to Land Use and Tenure**

According to Kameri-Mbote, the issue of land and resource rights has to be addressed in the broader context of international treaties since these treaties have impacts on land and resource rights.<sup>57</sup> At the international level, issues of access to land especially for the poor are provided for mainly under the realm of international human rights law. However, there is no right to land codified in international human rights law.<sup>58</sup> Nevertheless, a number of multilateral environmental agreements (MEAs) seek to establish a legal framework for environmental resources' management and also to create a favorable environment for sustainable and equitable development.<sup>59</sup> These MEAs are fundamentally important as regards resource rights, namely access, control and ownership of land.<sup>60</sup>

While rights have been established in the international legal framework that relate to land access for particular groups (e.g. indigenous people and, to a more limited extent, women), numerous rights are affected by access to land (e.g., housing, food, water, work), and general principles in international law provide protections that relate to access to land (e.g., equality and non-discrimination in ownership and inheritance), thus the need for an explicit consideration of the

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<sup>57</sup> Patricia Kameri-Mbote, 'The Impact of International Treaties on Land and Resource Rights', International Environment Law Research Centre, (2004), <[www.ielrc.org/content/a0407.pdf](http://www.ielrc.org/content/a0407.pdf)>

<sup>58</sup> Elisabeth Wickeri and Anil Kalhan, 'Land Rights Issues in International Human Rights Law', Institute for Human Rights and Business, (undated), <[www.ihrb.org/pdf/Land\\_Rights\\_Issues\\_in\\_International\\_HRL.pdf](http://www.ihrb.org/pdf/Land_Rights_Issues_in_International_HRL.pdf)> accessed 16<sup>th</sup> January 2015

<sup>59</sup> Patricia Kameri-Mbote, 'The Impact of International Treaties on Land and Resource Rights', International Environment Law Research Centre, (2004)

<sup>60</sup> Ibid

legal implications of access to land for a broad range of human rights is necessary.<sup>61</sup>

Numerous economic, social and cultural rights are intimately connected to access to land, including the rights to housing, food, health, and work. Socio-economic rights mandate a fair distribution of resources and opportunities, prioritization of and addressing the needs of the vulnerable and disadvantaged groups.<sup>62</sup> These rights aim to ensure that people have access to those resources, opportunities and services that would support their development.<sup>63</sup> Some of the international law with significant impact on land use and secure tenure for the urban poor discussed herein include; The Universal Declaration of Human Rights (UDHR), Convention on the Rights of the Child (CRC), the International Covenant on Social, Economic and Cultural Rights (ICESCR), the African Charter of Human and People's rights among others.

For example, the right to adequate housing is particularly relevant. Affordability, accessibility, adequacy and legal security of tenure are just a few of the issues affecting vulnerable people's enjoyment of the right to adequate housing, enshrined in Article 25 of the UDHR and Article 11 of ICESCR. The revised European Social Charter explicitly recognizes the right to adequate housing, including the provision of appropriate housing.<sup>64</sup> At a regional level the IACHR protects the right to housing through the right to own property, and has been invoked in cases concerning forced displacement and indigenous peoples' ancestral territories. The ACHPR gives protection to the right through the right to property, the right to health and the right to a general satisfactory environment

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<sup>61</sup> Elisabeth Wickeri and Anil Kalhan, 'Land Rights Issues in International Human Rights Law', Institute for Human Rights and Business, (undated), < [www.ihrb.org/pdf/Land\\_Rights\\_Issues\\_in\\_International\\_HRL.pdf](http://www.ihrb.org/pdf/Land_Rights_Issues_in_International_HRL.pdf) > accessed 16<sup>th</sup> January 2015

<sup>62</sup> Sibonile Khoza, "The Link between Development, and Social and Economic Rights: Are Socio-Economic Rights Developmental Rights?" (Socio-Economic Rights Project, CLC, UWC, 2002)

<sup>63</sup> Ibid

<sup>64</sup> Article 23; Article 31 calls for "Parties undertake to take measures designed: 1. to promote access to housing of an adequate standard; 2. to prevent and reduce homelessness with a view to its gradual elimination; 3. to make the price of housing accessible to those without adequate resources."

favourable to development. In *Port Elizabeth Municipality v Various Occupiers*, a number of persons who were unlawfully occupying private land were evicted by the municipality.<sup>65</sup> In a unanimous judgment by Justice Sachs, the Court held that for it to be persuaded that it was “just and equitable” to evict people from their homes, the state would have to show that serious consideration was given to the possibility of providing alternative accommodation to the occupiers and that Municipalities must show equal accountability to occupiers and land owners.<sup>66</sup>

Agenda 21 though not a convention, establishes fundamental land use goals; encouraging sustainable human settlements and integrating environmental considerations into development decisions.<sup>67</sup> The overall human settlement objective is to improve the social, economic and environmental quality of human settlements and the living and working environments of all people, in particular the urban and rural poor.<sup>68</sup> One of the program areas identified in the Agenda 21 to realize this objective is in promoting sustainable land use planning and management.<sup>69</sup> Indeed, the report of the World Commission on Environment and Development commonly referred to as ‘Our Common Future’ argues that the sustainable development of cities will depend on closer work with the majorities of urban poor who are the true city builders, tapping the skills, energies and resources of neighbourhood groups and those in the ‘informal sector’.<sup>70</sup> As such, some of the options for intervention identified are that governments should among others provide legal tenure to those living in ‘illegal’ settlements, with secure titles and basic services provided by public authorities and ensure that the

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<sup>65</sup> Vinodh Jaichand, “The Implementation and Enforcement of Economic and Social Rights in South Africa” Irish Human Rights Commission Conference Economic, Social and Cultural Rights: Models of Enforcement Dublin 9-10 December 2006

<sup>66</sup> Ibid

<sup>67</sup> John R. Nolon (ed), *Compendium of Land Use Laws for Sustainable Development*, (Cambridge University Press 2006)

<sup>68</sup> Ibid

<sup>69</sup> Ibid

<sup>70</sup> World Commission on Environment and Development, *Our Common Future*, Report of the World Commission on Environment and Development. (1987)

land and other resources people need to build or improve their housing are available.<sup>71</sup>

Under the auspices of FAO, the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests were officially endorsed by the Committee on World Food Security on 11 May 2012.<sup>72</sup> The Guidelines promote responsible governance of tenure of land, fisheries and forests, with respect to all forms of tenure: public, private, communal, indigenous, customary, and informal.<sup>73</sup> In addition, these guidelines provide a framework that States can use when developing their own strategies, policies, legislation, programmes and activities. Hence, they allow governments, civil society, the private sector and citizens to judge whether their proposed actions and the actions of others constitute acceptable practices.<sup>74</sup> For example, on informal tenure, these guidelines provide that:<sup>75</sup>

*“Where informal tenure to land, fisheries and forests exists, States should acknowledge it in a manner that respects existing formal rights under national law and in ways that recognize the reality of the situation and promote social, economic and environmental well-being.”*

Lastly, in view to replace the Millennium Development Goals once they expire at the end of 2015, the Sustainable Development Goals (SDGs) were first formally discussed at the United Nations Conference on Sustainable Development held in Rio de Janeiro in June 2012 (Rio+20). On 19 July 2014, the UN General Assembly's Open Working Group on Sustainable Development Goals (OWG) forwarded a proposal for the SDGs to the Assembly. The proposal contained 17 goals with 169 targets covering a broad range of sustainable

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<sup>71</sup> *ibid*

<sup>72</sup> See “About the Voluntary Guidelines on the Responsible Governance of Tenure” available at <http://www.fao.org/nr/tenure/voluntary-guidelines/en/>; Accessed on 27<sup>th</sup> June 2015

<sup>73</sup> *Ibid*

<sup>74</sup> *Ibid*

<sup>75</sup> FAO, *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*, (Food and Agriculture Organization of the United Nations 2012) available at [http://www.fao.org/fileadmin/user\\_upload/nr/land\\_tenure/pdf/VG\\_Final\\_May\\_2012.pdf](http://www.fao.org/fileadmin/user_upload/nr/land_tenure/pdf/VG_Final_May_2012.pdf); Retrieved on 27<sup>th</sup> June 2015

development issues, including ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change, and protecting oceans and forests.<sup>76</sup> Arguably, based on the SDGs, proper land administration and management as a foundation for sustainable development appears to have been accepted at the global stage. Specifically, Goal 15 seeks to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.<sup>77</sup>

### **2.3.2: Land Tenure Policy and Legal Framework in Kenya**

Various pieces of legislation and policy have been enacted in view to streamline issues of equity and equality in reference to land accessibility and use. For example the National Land Policy of 2009 made a critical reference point for the Constitution (2010) which now provides that land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with a number of principles including equitable access to land; security of land rights; and transparent and cost effective administration of land.<sup>78</sup> In addition, Article 61 (1) of the Constitution of Kenya (2010) provides that all land in Kenya belongs to the people of Kenya collectively as a nation, as communities and as individuals.<sup>79</sup> Indeed should these be realized, then attainment of Vision 2030, which seeks to achieve a just and cohesive society enjoying equitable social development in a clean and secure environment, shall be realizable.<sup>80</sup>

The right to property is protected under Article 40 of the Kenyan Constitution 2010. Article 40(3) states that the State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description,

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<sup>76</sup> See Press Release “UN General Assembly’s Open Working Group proposes sustainable development goals” available at <https://sustainabledevelopment.un.org/content/documents/4538pressowg13.pdf>; retrieved on 27<sup>th</sup> June 2015

<sup>77</sup> Ibid

<sup>78</sup> Article 60 (1) of the Constitution of Kenya (2010)

<sup>79</sup> Ibid

<sup>80</sup> Republic of Kenya, Vision 2030, (2007)



unless the deprivation; (a) results from an acquisition of land or an interest in land or a conversion of an interest in land, or title to land, in accordance with Chapter Five; or (b) is for a public purpose or in the public interest and is carried out in accordance with this Constitution and any Act of Parliament that requires prompt payment in full, of just compensation to the person; and allows any person who has an interest in, or right over, that property a right of access to a court of law.

The National Land Policy recognizes that the essence of ‘informal’ or ‘spontaneous’ or ‘squatter’ settlements is the absence of security of tenure and planning. Some of the proposals within the policy towards informal settlement upgrading and prevention include; taking inventory of genuine squatters and people living in informal settlements; determining whether land occupied by squatters is suitable for human settlement; facilitating planning of land found to be suitable for human settlement; facilitating negotiation between private owners and squatters in cases of squatter settlements found on private land; facilitating the regularization of existing squatter settlements found on public and community land for purposes of upgrading or development; establishing a legal framework and procedures for transferring unutilized land and land belonging to absentee land owners to squatters and people living in informal settlements; developing, in consultation with affected communities, a slum upgrading and resettlement program under specified flexible tenure systems.

The Land Act 2012 was enacted by parliament in view to ameliorate the hitherto land problems that were caused by the very many legislations relating to land administration, use and management in Kenya. This Act gives effect to Article 68 of the Constitution and intended, “...to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land based resources, and for connected purposes”. Land tenure and the resultant lack of security of tenure have been documented to be arguably the major impediment in slum upgrading initiatives. This Act provides the opportunity that can be exploited to deal with the land tenure problem in upgrading initiatives.

The Land Act 2012 establishes the following tenure options: freehold tenure, leasehold tenure and such forms of partial interest as may be defined under the Act and other law, including but not limited to easements; and customary land rights, where consistent with the Constitution. Moreover, under the Land Act 2012, title to land may be acquired through allocation; land adjudication process; compulsory acquisition; prescription; settlement programs; transmissions; transfers; long term leases exceeding twenty one year's created out of private land; or any other manner prescribed in an Act of Parliament. Some of these provisions can therefore be exploited to provide for regularization of land tenure in informal settlement/slums upgrading initiatives.

Similarly, under the Land Act, 2012, the National Land Commission has the mandate to implement settlement programs to provide access to land for shelter and livelihood on behalf of the national and county governments. These settlement programs shall include, but not be limited to provision of access to land to squatters, persons displaced by natural causes, development projects, conservation, internal conflicts or other such causes that may lead to movement and displacement. According to the Act, any land acquired in a settlement scheme shall not be transferable except through a process of succession and beneficiaries of land in settlement schemes shall be expected to pay a sum of money as may be determined from time to time by the National Land Commission and the body of trustees responsible for settlement matters. The Act further establishes a Land Settlement Fund administered by the National Land Commission.

### **2.3.3: Policy and Legal Framework on Land Use in Kenya**

The National Land Policy whose vision is “to guide the country towards efficient, sustainable and equitable use of land for prosperity and posterity” was a culmination of the Governments effort to curb a rather complex land management and administration system in Kenya. This scenario, the policy states, has resulted in environmental, social, economic and political problems including deterioration in land quality, squatting and landlessness, disinheritance

of some groups and individuals, urban squalor, under-utilization and abandonment of agricultural land, tenure insecurity and conflict. On land use policy it is stated;

*“It is recognized that land use planning is essential to the efficient and sustainable utilization and management of land and land based resources. However, little effort has been made to ensure that such plans are effectively prepared and implemented. This has been largely due to the glaring functional disconnect between the plan preparatory authorities and implementing agencies, lack of appropriate technical and institutional capacity of local authorities, inadequate human resource establishment in the ministry responsible for physical planning, absence of broad based consultation and the lack of an effective coordinating framework for preparation and implementation of the planning proposals and regulations. Lack of a national land use framework has made the situation worse. These problems manifest themselves in terms of unmitigated urban sprawl, land use conflicts, environmental degradation, and spread of slum developments and low levels of land utilization among others.”*

Therefore, the policy provides that the government shall develop a national land use policy as a basis for land use management and amend physical planning and local government laws to strengthen the enforcement of planning regulations; put in place a system for preparation and implementation of land use plans at all levels that provides for effective participation of all stakeholders; ensure the development and implementation of national and regional physical development plans, rural land use plans, and urban and peri-urban land use plans, all of them developed with the full participation of stakeholders and promote the use of urban land for different purposes within a planned framework and establish laws and systems for the proper management of urban land use, including the practice of urban agriculture and forestry as well as informal commercial activities, to ensure that they are undertaken in an ordered and sustainable manner.

The Constitution further takes cognizance of the fact that land use and sustainable environment practices are intrinsically intertwined and must therefore be looked at together and not as separate entities. Part 2 on Environment and Natural Resources under Article 69(1) provides that among others the State shall; ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; encourage public participation in the management, protection and conservation of the environment; protect genetic resources and biological diversity; establish systems of environmental impact assessment, environmental audit and monitoring of the environment; eliminate processes and activities that are likely to endanger the environment; and utilize the environment and natural resources for the benefit of the people of Kenya. Specifically, Article 66(1) provides that the State may regulate the use of any land, or any interest in or right over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning.

Land use planning in Kenya is currently undertaken under the Physical Planning Act (Cap 286). This is an Act of Parliament that provides for the preparation and implementation of physical development plans. This Act has a number of provisions, which need to be harmonized based on the current Constitutional dispensation. Indeed a number of Bills have been prepared. Nevertheless, it is still in force.

Under Part II, the Land Act 2012 bestows the responsibility of management of public land on the National Land Commission with key responsibilities including; identifying public land and preparing and keeping a database of all public land. It is also important to note that the Land Registration Act (2012) which largely gives provisions for registration of titles to land creates a parallel office of a Chief Land Registrar who together with other land registrars and officers under this office are appointees of the Public Service Commission and not the National Land Commission as it would have been envisaged under the

mandates of the NLC.<sup>81</sup> One notes however that this current approach to land management is prone to multiplicity of initiatives and confusion resulting to unsustainable land use. Moreover, the bureaucracy witnessed in such a disjointed system provides a fertile breeding ground for corruption and inefficiency.

Lastly, resolution of conflicts and disputes relating to land are provided for under the Environment and Land Court Act, 2011. This Act establishes the Environment and Land court, which has jurisdiction to hear and determine all disputes relating to land and environment. Section 13 (2) of the Act provides for such disputes are relating to: (a) relating to environmental planning and protection, trade, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources; (b) relating to compulsory acquisition of land; (c) relating to land administration and management; (d) relating to public, private and community land and contracts, choses in action or other instruments granting any enforceable interests in land; and (e) any other dispute relating to environment and land.

#### **2.3.4: Environmental Management and Conservation Framework**

The Constitution (2010) bestows a raft of rights to Kenyans. Chapter 4 on the Bill of Rights entrenches social, economic and environmental rights to all citizens. Section 42(a) provides that every citizen has a right to clean and healthy environment; Section 43 (a) provides for rights to health care services (b) accessible and adequate housing with reasonable standards of sanitation and (c) clean and safe water in adequate quantities. Realization of these rights partly depends on enabling the urban poor access to clearly defined property rights. These Constitutional rights are underscored in Part II of the Environmental Management and Coordination Act (1999) which has the general principles towards a clean and healthy environment. Nonetheless, Section 3. (1) of EMCA bestows both an entitlement to a clean and healthy environment to every person

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<sup>81</sup> See Land Registration Act (2012) Section 12. (1) (2); consider also provisions under Section 7 on Land registry which have potential for disharmony due to parallel centers of power. This may have a negative impact on sustainable land management.

in Kenya and a respective duty to safeguard and enhance the environment. In addition, the Constitution directs that every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.<sup>82</sup>

On environmental management, EMCA has mandated the National Environment Management Authority (NEMA) under section 9(2)(a) to coordinate the various environmental management activities being undertaken by lead agencies to promote the integration of environmental considerations into development policies. Under section 9(2)(c) and (d), NEMA in consultation with other lead agencies is tasked to establish and review land use guidelines and examine land use patterns to determine their impact on the quality and quantity of natural resources. NEMA has therefore prepared an *Integrated National Land Use Guideline* which identifies gaps, overlaps, sectoral conflicts and examines existing land use patterns and trends and tries to materialize harmony and build synergies to ensure sustainable land use and natural resource management in Kenya.<sup>83</sup>

The government, through the draft National Environment Policy 2013, recognizes the need to integrate environmental concerns in all policy, planning and development processes. It states thus in the policy document, "integration of environmental considerations in all national, county and relevant sectoral policies, planning and development processes is critical if this Policy is to achieve its goal and objectives." To operationalize these, the policy provides that State Departments responsible for the environment will have to take the leadership role in ensuring that all national, county and all sectoral policy planning and development processes mainstream environmental considerations.

Lastly, resolution of conflicts and disputes relating to land are provided for under the Environment and Land Court Act, 2011. This Act establishes the

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<sup>82</sup> Article 69 (2) of the Constitution of Kenya (2010)

<sup>83</sup> NEMA, *Integrated National Land Use Guidelines*, (National Environment Management Authority – Kenya, 2011)

Environment and Land court, which has jurisdiction to hear and determine all disputes relating to land and environment. Section 13 (2) of the Act provides for such disputes are relating to: (a) relating to environmental planning and protection, trade, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources; (b) relating to compulsory acquisition of land; (c) relating to land administration and management; (d) relating to public, private and community land and contracts, choses in action or other instruments granting any enforceable interests in land; and (e) any other dispute relating to environment and land.

#### **2.4: Chapter Summary**

Existing literature indicate that currently there exists a manifestation of use and abuse of land in informal settlements. Nonetheless, there is a dearth in literature espousing the linkages between land use in informal settlements in Kenya and the prevailing tenure arrangements and specifically the implications that secure tenure have on sustainable land use therein. It is this gap in knowledge that this study intended to fill. This gap is specifically noticeable in the unavailability of current literature explicitly interrogating possible presence of nexus between secure tenure and sustainable land use practices among holders of a modicum of secure tenure in informal settlements.

Indeed, existing literature only indicate that when the tenure of those living in informal settlements is secured, then the possibility of them using that secure tenure to carry out more permanent investments on land exist. Nevertheless, it is clear from literature that such eventual permanent investment on land maybe or may not be sustainable use of the land thus the justification for the current study which focuses on exploring the implications of secure land tenure on sustainable land use in informal settlements.

## CHAPTER THREE

### RESEARCH METHODOLOGY AND DESIGN

#### 3.1: Description of Study Site

This study was conducted within the jurisdiction of the Nairobi City County. Specifically it was carried out in two informal settlements found in Zone 7<sup>1</sup> – Kosovo and Kambi Moto. Kambi Moto is one of the five informal settlements in Huruma and is made up of approximately 270 households. It was established on open land, originally intended as a car-parking area for the adjacent formally-built low-cost houses. Kambi Moto means ‘place of fire’ and is so called because the high density of housing structures made from wood and scrap materials have burned down on several occasions.

Kosovo settlement forms a significant part of the Mathare Valley slums<sup>2</sup> due to its uniqueness as it is located along the river valley.<sup>3</sup> To the west, the settlement borders Mathare Mental Hospital and steeply slopes into the Mathare River to the south; village 2, Kiamutesya and Bondeni to the south of the river and to the north, it borders village 4.<sup>4</sup> The topography of the settlement slopes relatively steeply southwards into the river. The rocks forming the geological system of Kosovo are phonolite and tuff, which has been largely extracted due to quarrying activities in the late 1990s.<sup>5</sup> The estimated population size is 20,463 based on National Population Census 2009. Taking the national average urban household size of 3.2 persons, this population size translates to about 6,395 households.

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<sup>1</sup> According to a Guide of Nairobi City Development Ordinances and Zones, Zone 7 is one of the 20 other zones organized as such to facilitate development control. This zone comprises mainly informal settlements in the eastern side of Nairobi – Mathare Valley, Mathare North, Lower Huruma, Kariobangi and Korogocho Dandora.

<sup>2</sup> Mathare Valley lies approximately 6 kilometers to the northeast of Nairobi’s central business district and is bordered by Thika Road to the north and Juja Road to the south. The area is comprised of 13 villages: Mashimoni, Mabatini, Village No. 10, Village 2, Kosovo, 3A, 3B, 3C, 4A, 4B, Gitathuru, Kiamutisya, and Kwa Kariuki. The settlement sits within a valley of the Mathare and Gitathuru Rivers.

<sup>3</sup> University of Nairobi, University of California Berkeley, Pamoja Trust and the Mathare Valley Residents, *Kosovo Neighbourhood Plan*, (2010)

<sup>4</sup> Ibid

<sup>5</sup> Ibid



### 3.2: Research Approach and Strategy

This was a correlation research, concerned with assessing relationships between two key variables i.e. land tenure security and land use. The research strategy adopted for this study was concerned with four issues: (a) deciding the questions to study; (b) determining the relevant data; (c) deciding the data to collect; and (d) determining how to analyze the results.<sup>6</sup> Based on the data needs identified in table 1, the researcher used a mixed research design method to enable in-depth appreciation of all the issues relevant to this study.

**Table 1: Overview of Data Needs**

RESEARCH QUESTION	WHAT THE RESEARCHER REQUIRES	METHOD
<b>What land uses characterize the informal settlements under the prevailing tenure arrangements?</b>	<ul style="list-style-type: none"> <li>- Current land uses under prevailing tenure arrangements</li> <li>- Drivers of the current land uses</li> <li>- Challenges faced under the current land uses</li> </ul>	<ul style="list-style-type: none"> <li>- Questionnaire survey</li> <li>- Interviews</li> <li>- Focus Group Discussions</li> <li>- Observation</li> </ul>
<b>What are the effects of the current tenure arrangements on land use practices in the informal settlements?</b>	<ul style="list-style-type: none"> <li>- Prevailing tenure arrangements and associate property rights</li> <li>- People's perception of their tenure situation</li> <li>- Resident's perception on their tenure situation impact on their current land use</li> </ul>	<ul style="list-style-type: none"> <li>- Questionnaire survey</li> <li>- Interviews</li> <li>- Focus Group Discussions</li> <li>- Observation</li> </ul>
<b>Does securing tenure positively impact on land use practices in informal settlements?</b>	<ul style="list-style-type: none"> <li>- Residents perception on impact of upgraded tenure security on land use</li> <li>- Type of land use change upon tenure regularization</li> <li>- Opportunities for improving tenure situation</li> </ul>	<ul style="list-style-type: none"> <li>- Questionnaire survey</li> <li>- Key informant Interviews</li> <li>- Focus Group Discussions</li> <li>- Observation</li> </ul>

*Source: Author's Construct 2015*

As a method, the mixed research design focused on collecting data using various methods including questionnaire administration, key informant interview, focus group discussions, observation and analysis of documents. On the other hand,

<sup>6</sup> Philliber, S.G., Schwab, M.R. & Samsloss, G. *Social Research: Guides to a Decision-Making Process*, (Peacock, Itasca, IL, 1980)

analysis and synthesis of data involved mixing both quantitative and qualitative data. The detailed processes and activities under this research design are discussed in section 3.3 and 3.4 below.

### **3.3: Data Collection**

The data collection proceeded along six main activities including; literature review, preparation of research instruments, sampling, and training of research assistants, testing of research instrument and field data collection.

#### **3.3.1: Literature Review**

Literature review was the first activity undertaken by the researcher to enable the gathering of secondary sources of data including published material, policy and legislation documents i.e. Constitution of Kenya (2010), EMCA and other sectorial laws, journals etc. where data neither collected directly by the user nor specifically for the user was sourced.<sup>7</sup> Through literature review, the researcher was able to decipher the current research problem in view to enable the clear identification of research gap and appreciation of already existing research and information from other others. Moreover, information from literature review became a fundamental source of secondary data, which was analyzed and synthesized together with primary data from the field survey. Therefore, through desktop research, the researcher organized the process of literature review along key thematic areas covering aspects of land use, land tenure security in informal settlement's and environmental management.

#### **3.3.2: Preparation of Research Instruments**

Research instruments for this study were prepared based on the research objectives and questions. The research instruments prepared included a questionnaire with both closed and open-ended questions, key informants interview schedule, focus group discussions guide and direct observation matrix.<sup>8</sup> After preparation of research instruments, which was done by the

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<sup>7</sup> Donald Kisilu and Delno Tromp, *Proposal and Thesis Writing; An Introduction*. (Paulines publishers, Nairobi, Kenya, 2006)

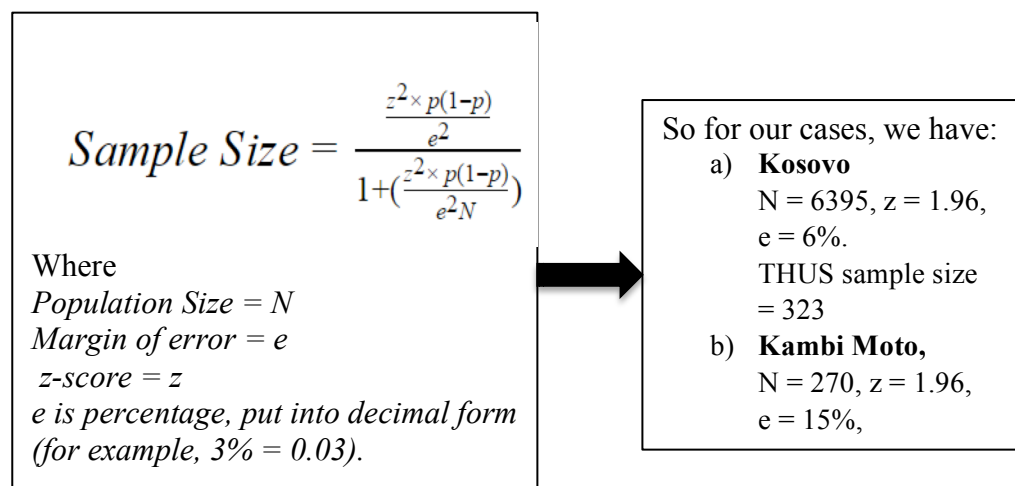
<sup>8</sup> See attachments

researcher with guidance from the university supervisors, a team of six research assistants with experience in field data collection in informal settlements was constituted to help in data collection. This team underwent thorough training on how to carry out field data collection, data organization, analysis and presentation. During the training the research assistants were taken through the household questionnaire, focus group discussion schedule and observation matrix. After the training, the research assistants carried out piloting of the household questionnaire where each of them administered two questionnaires, which were then reviewed to enable challenges encountered to be rectified. This piloting exercise was important in ensuring that the research assistants had an adequate understanding of the research instrument and also in enabling review of the specific questions in the questionnaire that were not clear.

### 3.3.3: Sampling and Sample Size

In this study, the main unit of observation was households. Sampling was critical in enabling household survey data collection using questionnaires. From the total population of 6,395 households in Kosovo and 270 households in Kambi Moto, a sample size of 323 households and 38 households respectively was calculated using conventional statistics formula for arriving at a sample size. This sample size was arrived at using the formula below;

**Figure 2 : Sample Size Formulae**



However, a sample size of 90 households for Kosovo and 38 households for Kambi Moto was arrived at based on ‘the rule of thumb’, which requires that a sample size must not be less than 30 for it to be statistically accepted. This decision was made after considering the calculated sample size of 323 households for Kosovo, which was too high for ease of execution based on time and financial resources available for this study.

Out of target sample size of 120 households, a total of 122 households were interviewed as illustrated below.

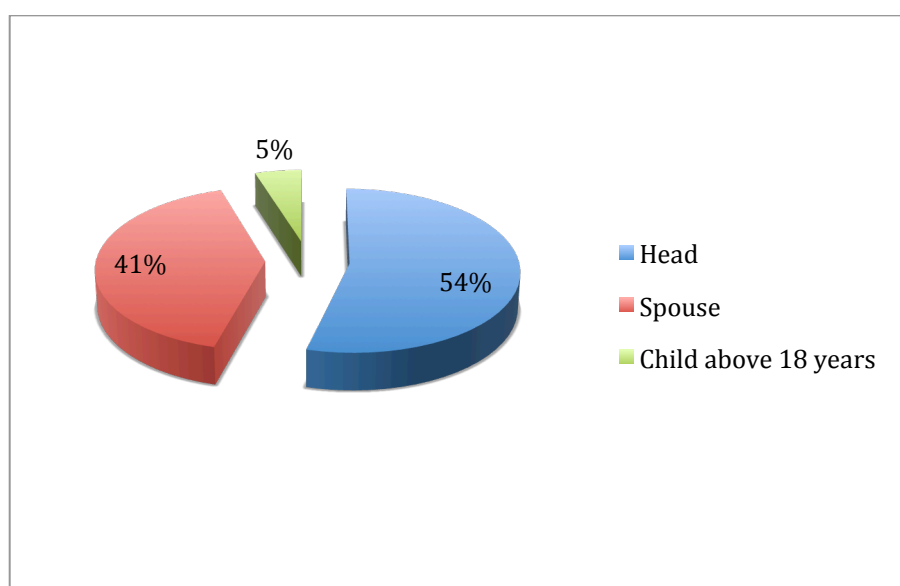
**Table 2: Number of Respondents**

Name of Settlement	Frequency	Percent
<b>Mathare Kosovo</b>	90	73.8
<b>Kambi Moto</b>	32	26.2
<b>Total</b>	122	100.0

*Source: Field Survey, 2015.*

From the 122 households interviewed, 46% of the respondents were male and 54% female. The respondents targeted and interviewed were the household heads, their spouse or child above 18 years as illustrated by chart 1 below.

**Chart 1: Persons Interviewed**



*Source: Field Survey, 2015.*

#### **3.3.4: Field Data Collection**

Being a mixed research design study, four areas of information; contextual, perceptual, demographic, and theoretical were needed. Contextual information, which refers to the context within which the participants reside or work was collected mainly through interviews with local residents to find information about history of the settlement, existing tenure systems, and existing land, uses. Demographic information which includes participant profile information that describes who the participants in a study are—where they come from, some of their history and/or background, education, and personal information such as age, gender, and ethnicity needed to help explain what may be underlying an individual's perceptions, as well as the similarities and differences in perceptions among participants was also collected.

Perceptual information relating to participants' perceptions on a particular subject of inquiry was collected mainly through interviews, FGD and some sections of the household questionnaire. Such information included perceptions on impact of tenure security on current and future land use. Lastly, theoretical information, which includes information, searched and collected from the various literature sources to assess what is already known regarding the research topic was collected. Such data included information on various concepts and theories underpinning this study.

Therefore, primary data for this survey was collected using the following methods; questionnaire surveys, interview administration, focus group discussion and observation. These are discussed in detail below.

##### **a) Questionnaire Administration**

A structured questionnaire was used to collect data and views from households. The questionnaire was brief and covering areas such as household characteristics, land use, land tenure issues, environmental issues, challenges and suggestions. Research assistants who were trained before being deployed to the field administered the questionnaires in Kosovo and Kambi Moto. The

questionnaires were administered by the research assistants with the help of community guides who were selected from their respective villages of residence within the informal settlement. This made it easier for the groups to access various households within a locale. Community guides were also important in providing security to the research assistants.

#### **b) Key Informant Interview Administration**

Interview administration involved direct questioning; probing, open-ended discussions and non-verbal communication with specific respondents to obtain detailed information based on the research questions. The researcher used an interview guide to generate discussions with key sources such as government officers, professional, community group leaders, and landlords. The aim of these interviews was to get informants to freely offer their opinions, knowledge and experience. This type of interview involved the researcher asking informants open-ended questions, and probing wherever necessary to obtain data on relationships and roles played by various stakeholders in tenure administration and environment sustainability.

#### **c) Focus Group Discussion (FGDs)**

Focus Group Discussion which refers to a directed discussion between the researcher and a group of interest where the researcher uses a predetermined checklist of key topics to guide the discussion was also used in this study to get in-depth understanding of the attitudes, beliefs, behaviors, motivations and perceptions on the subject matter of this study through follow up questions and probing. The researcher conducted two FGDs (one in each settlement) of eight persons with representation of gender, youth, person with disability and elders. During the FGD sessions, data was captured by note taking and using a recording device (Dictaphone) for latter transcription.

#### **d) Observation**

This tool of assessment involved actual observation of the settlement to gain better understanding of the impact of tenural arrangements on the physical environmental and more importantly how humans interact with the environment

i.e. issues of waste management. The research assistants who were the observers in this research compiled field notes describing what they observed based on the observation matrix, which was prepared by the researcher – *see appendix 4*. During the FGDs, which were held within the informal settlement, the researcher also had a chance to carry out a rapid appraisal of the settlements guided by the same observation matrix.

### **3.4: Data Analysis**

Data analysis, defined by Kombo and Tromp<sup>9</sup> as the process of examining what has been collected in a survey/experiment and making deductions and inferences, was carried out based on both qualitative and quantitative analysis techniques. Qualitative data collected captured by note taking and using a Dictaphone recording device was transcribed. Patton<sup>10</sup> argues that qualitative data analysis is continuous process that begins at the data collection stage and entails the process of examining, categorizing, tabulating, and compiling empirical evidence to address the research questions.

Such data obtained through interviews and FGD was subjected to content analysis as suggested by Yin, where the researcher identified any incongruence between the various interviews, or between the interview results and the results of the documents reviewed.<sup>11</sup> This data was coded through a process of assigning labels to words, phrases, or paragraphs.<sup>12</sup> This enabled the researcher to differentiate and combine interview data into categories to create ideas, themes, or concepts.<sup>13</sup> For presentation of this data the researcher has used direct quotations to justify conclusions about various ideas and themes.

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<sup>9</sup> Donald Kisilu and Delno Tromp, *Proposal and Thesis Writing: An Introduction*. (Paulines publishers, Nairobi, Kenya, 2006)

<sup>10</sup> Patton, M. Q. *Qualitative Research and Evaluation Methods* (3rd ed.). (Thousand Oaks, CA: Sage, 2002)

<sup>11</sup> Yin, R.K. *Case Study Research: Design and Methods*, 4th edn, Sage, (Thousand Oaks California, 2009)

<sup>12</sup> Kumar, R. *Research Methodology: A Step-by-Step Guide for Beginners*, 3rd edn, (Sage, London, 2011)

<sup>13</sup> Carson, D., Gilmore, A., Perry, C. & Gronhaug, K., *Qualitative Marketing Research*, (Sage, London, 2001)

Data collected through questionnaires was cleaned through proof reading and coded to enable empirical analysis. The researcher used SPSS (Statistical Package for Social Sciences) to enable data storage, manipulation, analysis and reporting.<sup>14</sup> Before inputting the data into the SPSS software, the research assistants together with the researcher prepared a codebook to guide data entry. This was followed by validation of entries entered in the SPSS data frame. Once all entries had been validated, various frequency tables and cross tabulations were generated based on an analytical framework, which had been prepared by the researcher. Presentation of the analyzed data was done in form of graphs, tables, and charts.

### **3.5: Ethical Considerations**

Before a researcher settles on a specific research design he/she needs to consider a fundamental issue relating to the ethical considerations related to that particular research. Mugenda and Mugenda note that in the case of ethical issues awareness will protect the integrity of the researcher and also ensure honest results.<sup>15</sup> On their part, Kombo and Tromp argue that because more often than not researchers use people or animals who may suffer pain and distress in the process, attention must be given to ethical issues.<sup>16</sup> The key ethical principles that this research considered included voluntary participation, informed consent, risk of harm and confidentiality.

The principle of *voluntary participation* requires that people are not coerced into participating in research. Therefore, participation in this research by the respondents was on voluntary basis. Closely related to the notion of voluntary participation is the requirement of *informed consent*. This required that prospective research participants were fully informed about the objectives of the research and were then requested to give their consent to participate. Similarly, ethical standards also require the researcher not to put participants in a situation

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<sup>14</sup> Yadette T, *Research Design, Data Collection and Analysis*. (UNON Publishers, Nairobi, 2006)

<sup>15</sup> Ibid

<sup>16</sup> Donald Kisilu and Delno Tromp, *Proposal and Thesis Writing; An Introduction*. (Paulines publishers, Nairobi, Kenya, 2006)



where they might be at *risk of harm* both physically and psychologically. This research was thus designed to guarantee participants *confidentiality* -- they were assured that identifying information was not be made available to anyone who was not directly involved in the study. Moreover, while presenting findings of this study, the researcher abided by the principle of *anonymity* by not refereeing to the respondents by their names.

### **3.6: Study Limitations**

The limitations under this study were mainly three fold touching on aspects of security and health of research team, inaccessibility of respondents and communication barrier, and resource limitation. Studies in informal settlements usually face health and security challenges due to the precarious security and health conditions there. For this research, the researcher put in place protective measures to ameliorate this challenge. This included using community guides to introduce the team within the settlement and to also guide the team through all the households in the settlement. The research team was also advised to avoid consuming any foods and drinks whose quality was questionable. Inaccessibility of respondents was both in terms of their physical unavailability and communication barrier. In cases where the households targeted were absent the research team considered the next available household. This ensured that the target sample size was adhered to.

Communication barrier was overcome by ensuring that all the research team was trained and capable of translating the research questions into Kiswahili language. Moreover, to minimize misinterpretation of the questions, the research assistants were taken through training and piloting of the questionnaire before being allowed to commence data collection.

Due to constraints in time and resources, this research largely depended on non-probability sampling methods where households' to be interviewed were selected using convenient sampling. However care was taken to ensure effective spatial coverage of the whole settlement. In each selected household, the head of

the household was interviewed and in his/her absence any adult who was present at the time of the interview. In addition, this study was limited to only two informal settlements in Nairobi. This may affect replicability of the findings to other informal settlements. Nonetheless, the findings still form a strong foundation for arguments on implications of land tenure security on sustainable land uses in urban informal settlements.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS, ANALYSIS AND DISCUSSION**

#### **4.1: Overview**

In this chapter we present the findings of the study based on both secondary and primary data collected. The primary and secondary data collected outlines the main findings of the land use and tenure arrangements, effects of the current tenure arrangements on land use practices and environmental management and the impacts of securing tenure on land use practices in Kosovo and Kambi Moto informal settlements.

#### **4.2: Land Use in Informal Settlements under the Prevailing Tenure Arrangements**

##### **4.2.1: Land Tenure Arrangements in the Informal Settlements**

In informal settlements, the tenure options as defined by the Constitution of Kenya 2010 are rarely a straightforward phenomenon. The complexity of land tenure in informal settlements is worsened by factors such as absentee landowners, structure owners, compensation demands and sometimes limitations in the legal framework and wanton corruption. It is important to note that various urban areas in Kenya have some degree of differences in terms of tenure system that are operational within such settlements. The difference in tenure systems and even the tenure administration mechanisms adopted usually depend on a number of factors including the historical nature of the settlement, the extent of the city/municipal/town boundary, and the socio-cultural factors among other.

Similarly differences in tenure systems further vary due to the level of urbanization in a particular urban area. For example urban areas that are largely rural are likely to have more of customary and even private tenure as opposed to more urbanized urban areas that have more settlements within public land on leasehold tenure from either the national or county government to various public

agencies. Syagga has eloquently documented the different tenure arrangements in the informal settlements in Kenya;<sup>1</sup>

*“Land tenure in informal settlements range from legal to Illegal. There are those who own the land and have carried out development without planning approval, hence the settlements lack basic infrastructure. Others own shared certificates from original land owners who carried out illegal subdivisions. However, there is still one title for the whole land and sub-titles will never be issued without planning approval. There are those who hold Temporary Occupancy Licenses (TOLs) who formally got letters of allotment from responsible authorities to occupy public land on a temporary basis, mainly roadside garages, food kiosks, etc. but who have continued to stay and converted the sites to residential accommodation. The quasi-legal rights holder has unregistered rights obtained through allocation by a local authority official/councillor or national government official (but who has no authority to allocate land under the law). Another category occupies customary land which has not been registered and is not planned therefore the settlements remain reminiscent of rural settings with no services. Finally, there are those who squat on public or private land without permission. These illegal settlements are not planned and therefore lack the requisite infrastructure and related facilities.”*

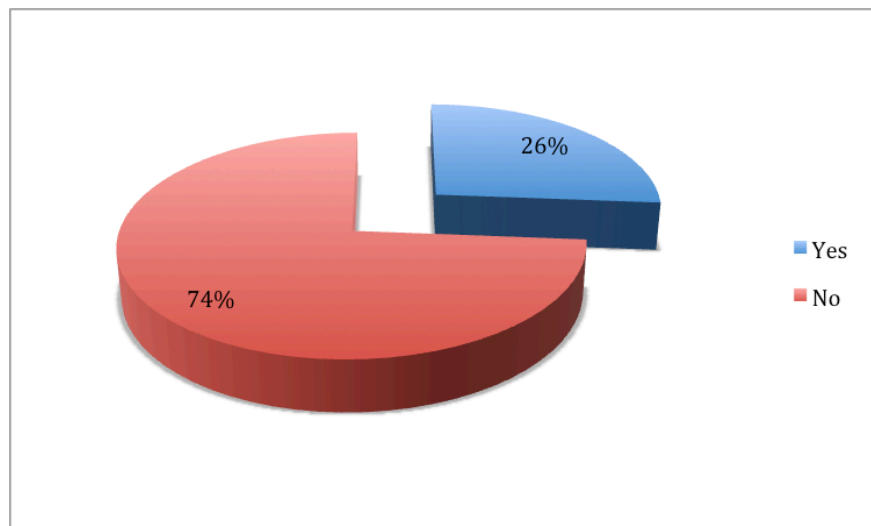
The tenure arrangements described by Syagga resonate with the existing situation in Mathare Kosovo and Kambi Moto informal settlements. The informal settlement dwellers here, have continued to occupy both poor and hazardous pieces of land or squat on public land characterized by no and/or limited tenure rights. This lack of secure tenure is manifested from the informal and/or illegal land tenure systems, or are on a continuum somewhere between an informal or illegal and legal land tenure system that characterizes these settlements. These two settlements sit on public land owned either by the National government or the Nairobi City County. For example, Mathare Kosovo is on land owned by the Kenya Police while the land that is occupied by the

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<sup>1</sup> See Paul M. Syagga, Land Tenure in Slum Upgrading Projects, [http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul\\_Syagga\\_-\\_LAND\\_TENURE\\_IN\\_SLUM\\_UPGRADING.pdf](http://halshs.archives-ouvertes.fr/docs/00/75/18/66/PDF/Paul_Syagga_-_LAND_TENURE_IN_SLUM_UPGRADING.pdf) accessed on 18 December 2013

Kambi Moto settlement is a property of the Nairobi City County (NCC). Indeed a majority 74% of the respondents in both informal settlements confirmed that they do not own the land where their housing structure is built hence they are tenants – *see chart 2*. It is notable that this finding corroborates those by World Bank through a report published in 2006 which argued that about 92 percent of the households within the over 180 different informal settlements in Nairobi, are rent-paying tenants; of the remaining eight percent, six percent claim they own both their house and the land, while two percent say they own the structure but not the land.<sup>2</sup>

**Chart 2: Land Ownership in Mathare Kosovo and Kambi Moto**



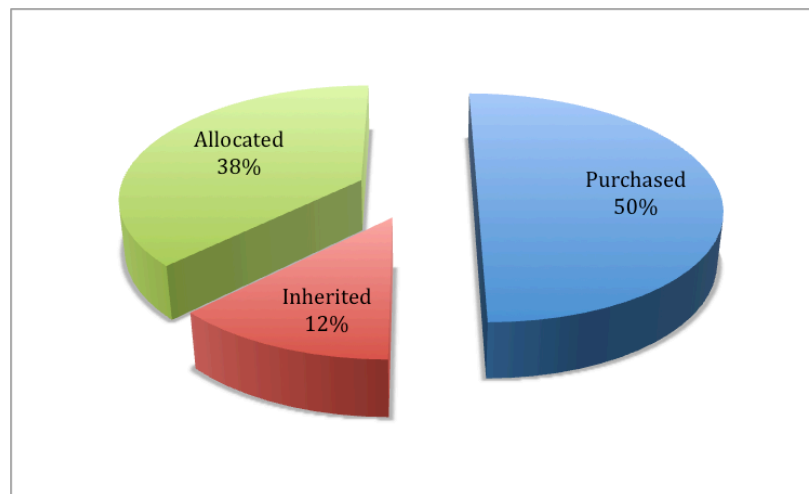
*Source: Field Survey, 2015.*

Similarly, when the respondents in this study who noted that they own the land they occupy were asked how they acquired the land, 50% of them said that they purchased the land while another 38% argued that they were allocated the land – *see chart 3*. This assertion by occupiers of land in these informal settlements connote a thriving informal land market devoid of proper documentation, proof of ownership, registration, planning, surveying and payment of requisite taxes. Though the transactions are not legally enforceable, i.e. formally protected, the

<sup>2</sup> World Bank, 'Inside Informality: Poverty, Jobs, Housing and Services in Nairobi's Slums', (2006)  
[http://www.pseau.org/event/africites\\_4/ss\\_slums/gulyani\\_nairobi\\_slums.pdf](http://www.pseau.org/event/africites_4/ss_slums/gulyani_nairobi_slums.pdf); accessed 24/1/2013

informal land market has devised its own quasi-legal procedures to authenticate ownership, transfer and sale of the land. This scenario is exemplified by a process where local administration allocate a plot either verbally or with a letter commonly referred to as certificate. These processes offend the provisions of Kenyan land law but they have been practiced overtime with little challenge.

**Chart 3: Method of Land Acquisition**

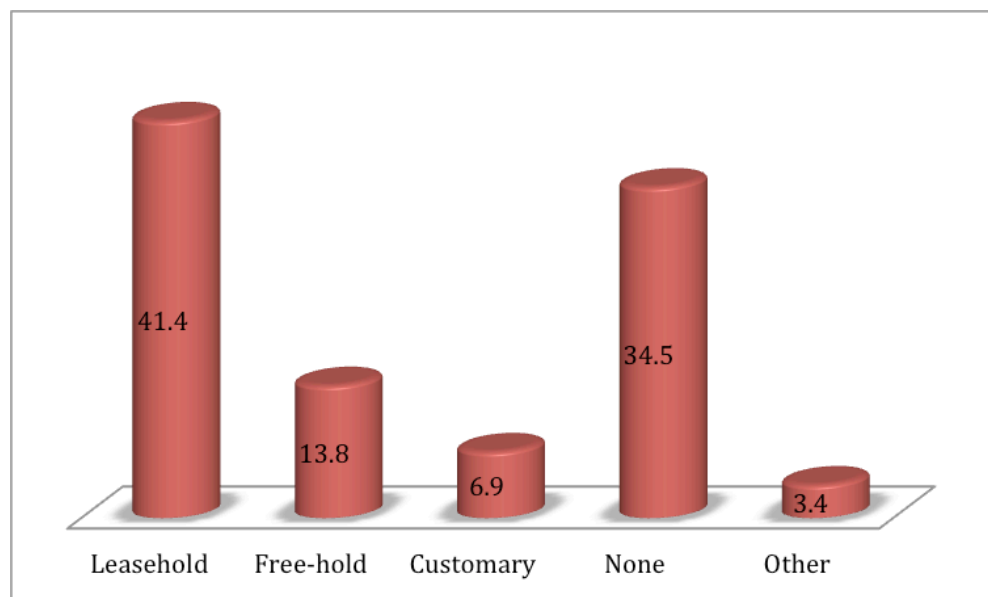


*Source: Field Survey, 2015.*

Such a system of land acquisition, informal but officially sanctioned, provides benefits to some officials and underpins a system of patronage where occupiers of land have to ensure their 'security of tenure' by paying allegiance to the local administration or through bribery. Moreover, profits realized from these transactions accrue largely to absentee landlords and the local administrators, haphazard layouts prevent the introduction of services, and densities seriously endanger health. In Mathare Kosovo, if the original beneficiaries of the settlement program wants to sell the plot he or she has to consult the village elders, the chairperson and has to pay Ksh.10,000/= as a transfer fee of the ballot card. It is during such transfers under the informal market that the next 'owner' is now issued with a 'Certificate of Ownership' replacing the ballot card. In addition, the name of the new buyer is entered in a record book replacing the previous owner.

Principally, the lack of proper documentation for transfer of ownership characterizes this informal land market. Conversely, when the same group of respondents who claimed to own the land they occupy were asked about the form of tenureship they held, 41% noted that they had leasehold tenure, 14% had freehold tenure. Another 35% reported that they did not hold any form of tenure despite claiming that they owned land. Chart 4 below illustrated these findings.

**Chart 4: Tenure held in the Plot Occupied**



*Source: Field Survey, 2015.*

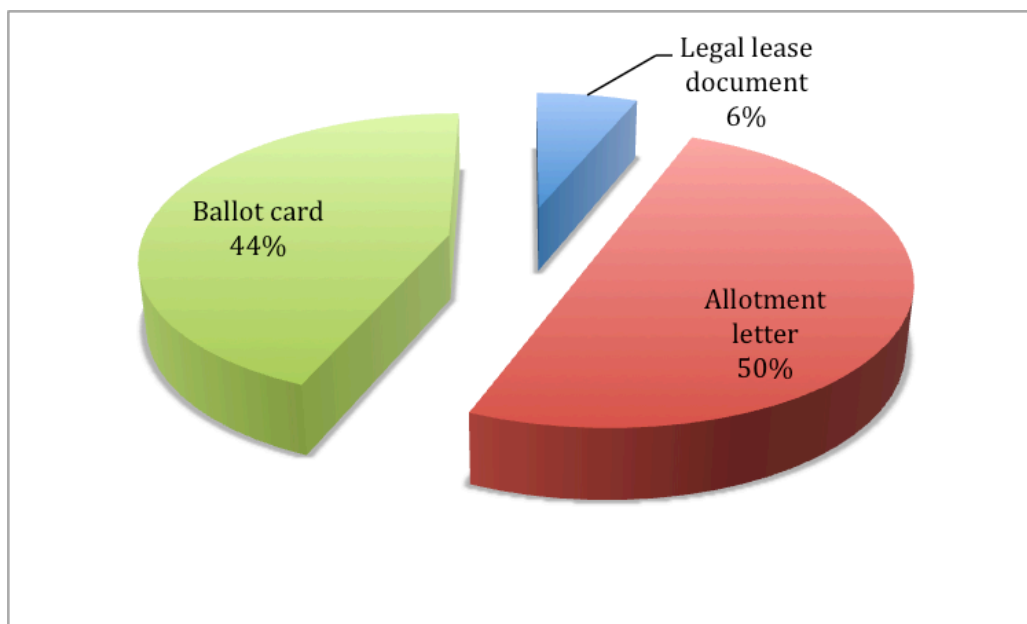
Under the Land Act 2012, title to land may be acquired through allocation; land adjudication process; compulsory acquisition; prescription; settlement programs; transmissions; transfers; long term leases exceeding twenty one year's created out of private land; or any other manner prescribed in an Act of Parliament. The acquisition of title is then deemed conclusive by the issuance of a certificate of title by the Land registrar as evidence of proprietorship as provided under the Land Registration Act, 2012 section 26.(1) which provides that:

*“The certificate of title issued by the Registrar upon registration, or to a purchaser of land upon a transfer or transmission by the proprietor shall be taken by all courts as prima facie evidence that the person named as proprietor of the land is the absolute and indefeasible owner, subject to the encumbrances, easements, restrictions and conditions contained or*

*endorsed in the certificate, and the title of that proprietor shall not be subject to challenge, except — (a) on the ground of fraud or misrepresentation to which the person is proved to be a party; or (b) where the certificate of title has been acquired illegally, unprocedurally or through a corrupt scheme.”*

It is vital to note that out of the respondents who noted that they own land, a majority 53% argued that they do not have some form of land ownership document to prove this claim of ownership. The other 47% noted that they do have a document to prove ownership of the plot of land. When the researcher probed further to find out the nature of the land ownership document in the custody of the respondent, 50% of the respondents noted that they had allotment letters issued by the now defunct Nairobi City Council, 44% noted that they have a ballot card while only 6% said that they have a legal lease title – *see chart 5 below*.

**Chart 5: Land Ownership Documents held by Respondents**



*Source: Field Survey, 2015.*

As a form of land ownership document, respondents in Mathare Kosovo mainly held the ballot card while those in Kambi Moto mainly held allotment letters. Within Informal settlements, what is commonly referred to as ‘ballot card’ is a



card, which was usually issued by the Government through the then provincial administration as an identification document for those who benefited from a resettlement program. For example, according to one of the Village Elders interviewed:

*“... when Mathare Kosovo settlement started in 2001 when the first settlers who were victims of an eviction that took place at Village II, also another part of the larger Mathare Valley, were given the Kosovo land by the Government, each affected person was allocated space measuring 10 by 20 feet or 13 by 20 feet. We were then issued with a ballot paper, which had the plot number, stamp and signature for the then District Officer and then the card holder had his/her name entered in a registration book commonly referred to as black book...”*

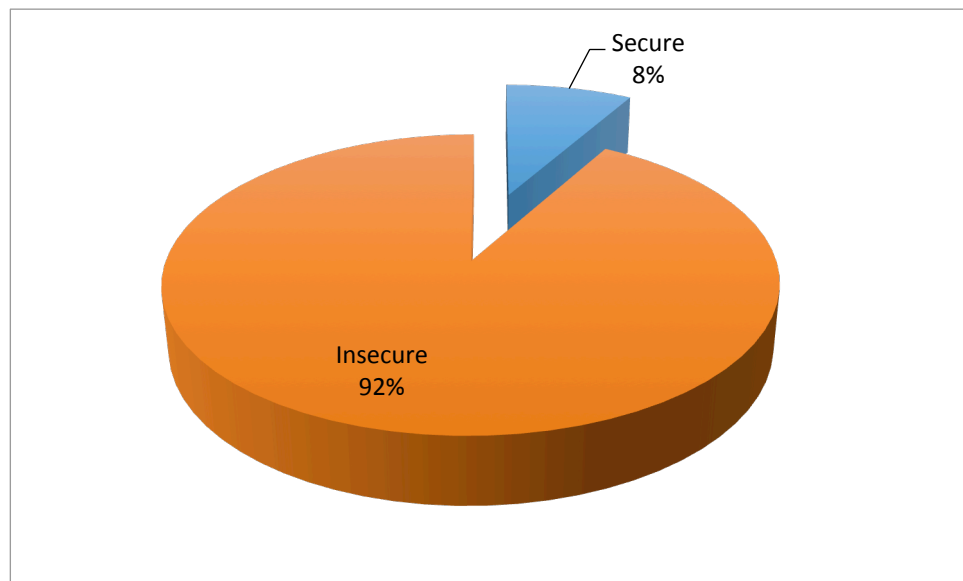
This ballot card though issued by a government officer is not a legal land ownership document as per the requirements of the Land Registration Act, 2012 section 26.(1) which only mandates the Land Registrar to issue land ownership documents enforceable by a court of law. Moreover, it should be understood that the meaning ascribed to ‘ballot card’ is different from the process of balloting as a way of allocating public land through competitive bidding.<sup>3</sup> Within the informal settlements, a ballot card connotes a document of land ownership and registration.

The residents are fully aware of this fact as noted by 92% of the respondents who perceive their tenure status to be insecure as compared to only 8% who perceive their tenure as secure – see chart 6.

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<sup>3</sup> Land Act, 2012 section 12.(1)

**Chart 6: Perception of Tenure Security**



*Source: Field Survey, 2015.*

Land ownership embodies a bundle of various rights including right of sale, of possession, of *usufructus*, of lease, the rights to charge and create easements and the right to keep out strangers.<sup>4</sup> In informal settlements, occupiers of the land there usually do not possess these rights. However, about 70% of the respondents indicated that they have some modicum of property rights. In both informal settlements some of the property rights that were mentioned includes the right to legally sell the land, rights to change the current use, rights to bequeath to the next generation and rights to make decision on use of land – *see table 3*. Nevertheless, through further probing, it became apparent that these rights have more to do with how individuals perceive their ‘ownership’ of the land and not the legality of the right they profess to hold as they do not have any legal title to the land that clearly outlines the respective rights associated with their occupancy of the land.

**Table 3: Perception of Property Rights**

<sup>4</sup> See P.L. Onalo, *Land Law and Conveyancing in Kenya*, (LawAfrica Publishing (K) Ltd., 2008); Honoré, A.M. “Ownership.” In *Oxford Essays in Jurisprudence: A Collaborative Work*, edited by A.G. Guest, 107–147. Oxford University Press, 1961.

PROPERTY RIGHTS	PERCENT
Right to legally sell the land	12%
Rights to change the current use	18%
Rights to bequeath to the next generation	30%
Rights to make decision on use of land	10%
No rights	30%
<b>Total</b>	<b>100.0</b>

*Source: Field Survey, 2015.*

In a report sanctioned by the Government of Kenya, it was noted that tenure for many who live and work in the settlements is insecure and that about 1.5 million people are confined to less than 5 per cent of the total city residential area where the population is subject to uncertainty associated with ambiguous and irregular land allocation, commonly referred to as "land grabbing".<sup>5</sup> It is further reported that despite the State owning 50 per cent of this land officially, individuals have over time negotiated informal arrangements with the authorities to erect structures and collect rents resulting into the large number of tenants.<sup>6</sup> Additionally, it is argued in the report that the ambiguous tenure status of those living and working in informal settlements - structure owners and tenants alike - prohibits them from enjoying their rights as urban citizens and as such do not participate in decision-making processes that affect them.<sup>7</sup>

#### **4.2.2: Land Use Under Prevailing Tenure Arrangements**

Various studies conducted on informal settlements in Kenya show that about 60 percent of Kenya's urban population lives in informal settlements that are characterized by among others poor environmental conditions and unsustainable

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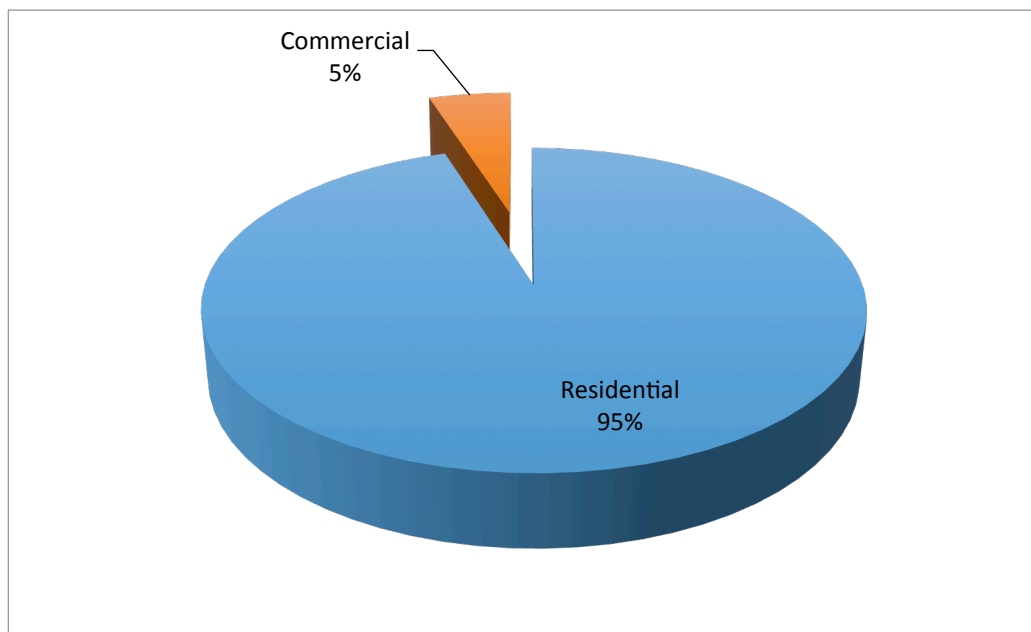
<sup>5</sup> Government of Kenya and UNCHS, *Nairobi Situation Analysis, a Consultative Report*, (UNCHS Nairobi, 2001)

<sup>6</sup> Ibid

<sup>7</sup> Ibid

land use activities including; way leave harborage, infrastructure construction (water, sewerage, and bridges), residential development (ranging from temporary tin structures to permanent stone structures), solid waste disposal, recreation, secondary mining, and urban agriculture.<sup>8</sup> According to this study, the current main land use in both Kosovo and Kambi Moto informal settlements is residential development as noted by 95% of the respondents – *see chart 7*.

**Chart 7: Main Use of Land**



*Source: Field Survey, 2015.*

It was further observed that areas used for residential developments have a mixed use character where they host both residential functions and business activities especially those found along the major streets within the settlement. The business activities hosted in such developments include small-scale business such as green grocery, salons, barbershops, general merchandise shops, cafes and bars. In Mathare Kosovo, there were a few light industrial land uses mainly characterized by brewing of local alcohol popularly known as ‘chang’aa’ and

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<sup>8</sup> See UN Habitat and KENSUP, (United Nations Human Settlements Programme, 2007) [www.unhabitat.org](http://www.unhabitat.org) > accessed 6<sup>th</sup> March 2014; Karisa Charles, ‘A Negotiated Framework for Rehabilitation of Riparian Zones in Nairobi City: the case of Mathare River Valley’, 46th ISOCARP Congress (2010) < [www.isocarp.net](http://www.isocarp.net) > accessed 25<sup>th</sup> February 2014

baking of pastries. Table 4 further illustrates the nature of the residential land uses as observed and documented by the researcher.

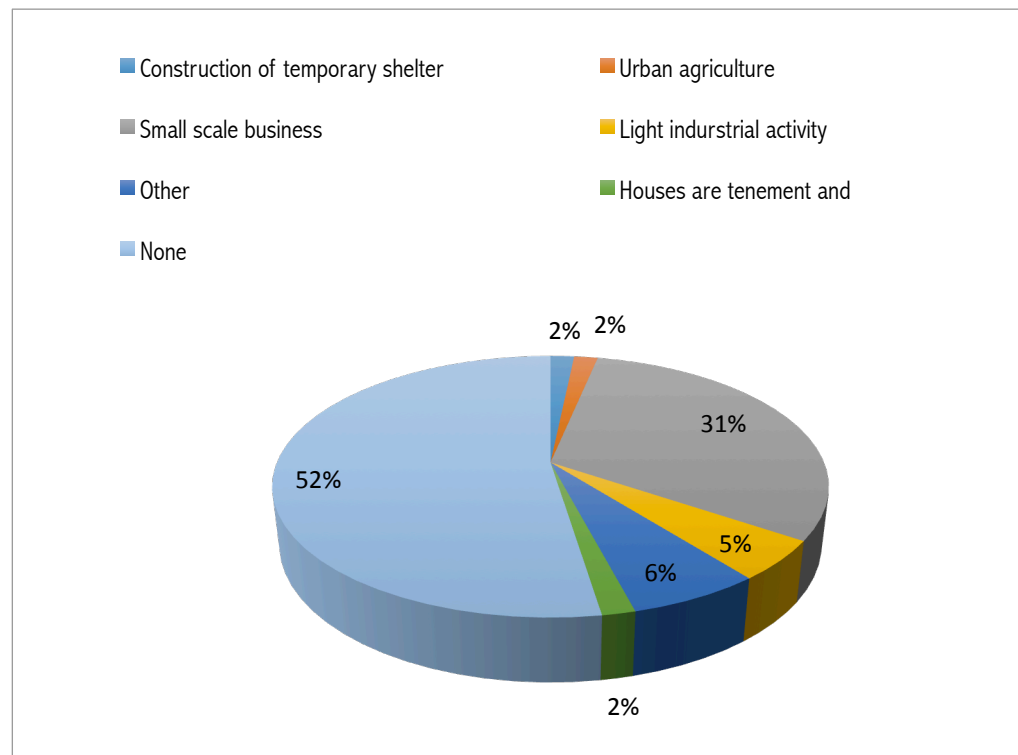
**Table 4: Nature of Land Use Activity**

NATURE OF LAND USE	PERCENT
Construction of flats and temporary structures	26%
For residential and accommodation purposes only	8%
Houses are tenement and in poor conditions. Litter is disposed indiscriminately and water disposal at the doorstep makes the surrounding dirty	41%
The residential units are improved and have access to basic services	2%
The structures are temporary	2%
The structures are temporary and needs repair	7%
The structures are temporary with business activities	0.8
The structures/residential units are permanent and in good condition	9.0
No Answer	4.9
<b>Total</b>	<b>100.0</b>

*Source: Field Survey, 2015*

Other land use activities being practiced by the residents in Kosovo and Kambi Moto informal settlement include: small scale business located at the front of the house, usually through an open window while the other partition is used for sleeping and cooking and practiced by 31% of the respondents, light industrial activities (5%) and urban agriculture characterized by planting of vegetables on balconies, rearing poultry and planting of onions on the roof tops by 2% of the respondents – *see chart 8*.

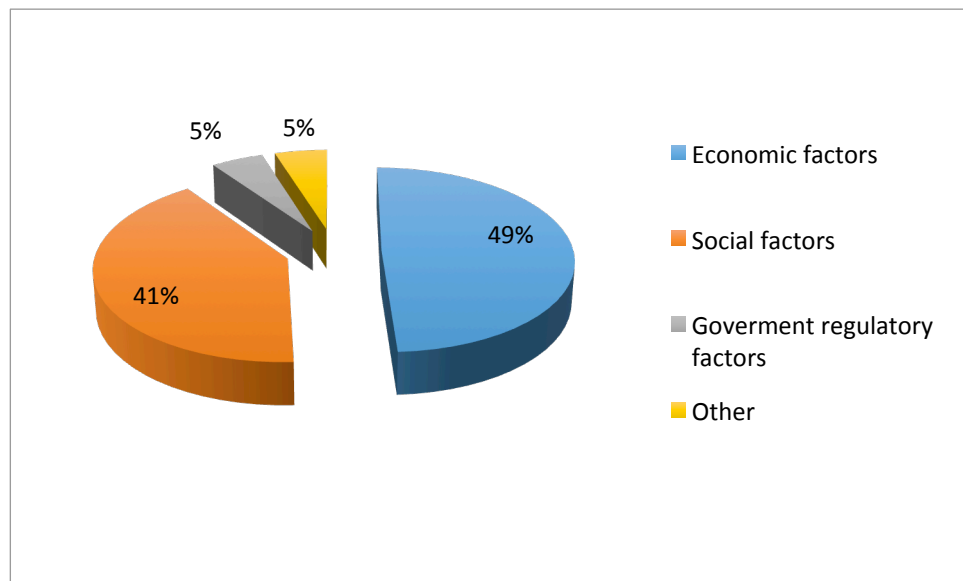
**Chart 8: Other Land Use Activities Practiced**



*Source: Field Survey, 2015*

Current land use practices in Kosovo and Kambi Moto informal settlements are predominantly informed by economic factors, social factors, government regulation and directives issued by the landlord (in the case of rental houses) – *see chart 9*. Based on chart 9, 49% of the respondents noted that the way they use land is mainly informed by economic factors. For example these respondents use the land they occupy for both residential and income generating activities such as small-scale business and urban agriculture, fundamentally due to the need for extra income to sustain the family. Others have been forced to sleep where they carry out their income generating businesses because of lack of funds to rent separate space.

**Chart 9: Drivers of the Current Land Use**



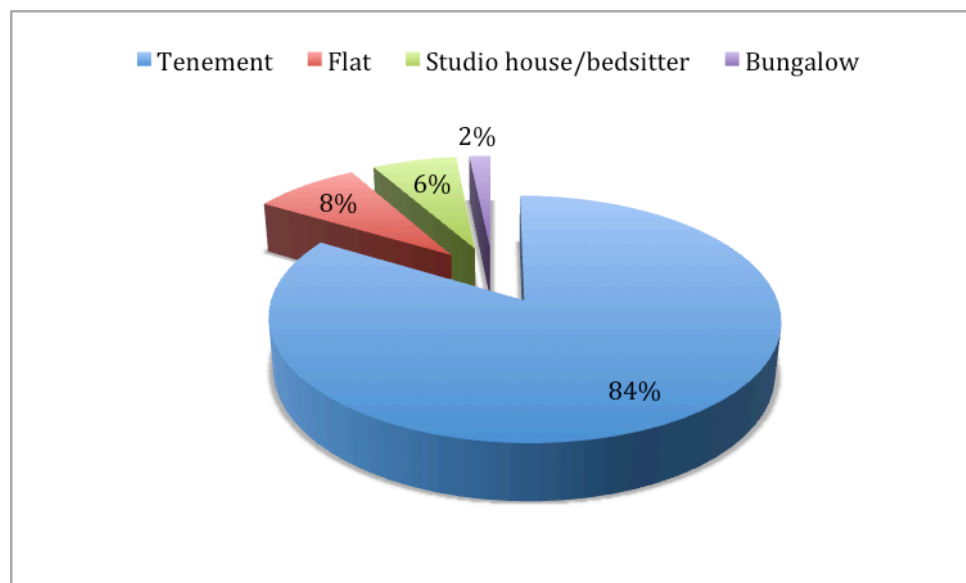
*Source: Field Survey, 2015*

Social factors noted by 41% of the respondents include; cultural beliefs on inheritance where households that have inherited the land being used for residential purpose cannot change the use, congestion has led to limited space to initiate new activities, restraining them to only a single land use, and insecurity has discouraged growth of commercial activities. On the other hand, there were about 5% of the respondents who argued that their current use of land is influenced by what the landlord permits. These respondents argued that there are landlords who are very strict with the way their tenants use the space they have rented while there are others who give their tenants freedom to initiate any other activity on the plot.

Some tenants fear to start businesses at their residential houses because of fear of extortion by the landlords as noted by one of the respondents who said; “once the landlords see the business is doing well, they start demanding extra cash from the tenants.” Government regulatory factors also influence households’ use of land as noted by 5% of the respondents who argued that some land use activities such as establishment of eateries, farming on the riparian reserve, keeping of livestock require approval by government agencies, hence without these they cannot carry out these activities.

To further illustrate the characteristics of land use in the informal settlements, this study sought to find out the nature of housing units and human behavior as relates to some key sanitation practices. Findings from the fieldwork illustrate that the most prevalent (84%) housing typology in the informal settlements is tenements. However, about 8% of the houses sampled were flats with 3-5 levels especially in Kambi Moto – *see chart 10*.

**Chart 10: Housing Typologies in the Informal Settlements**

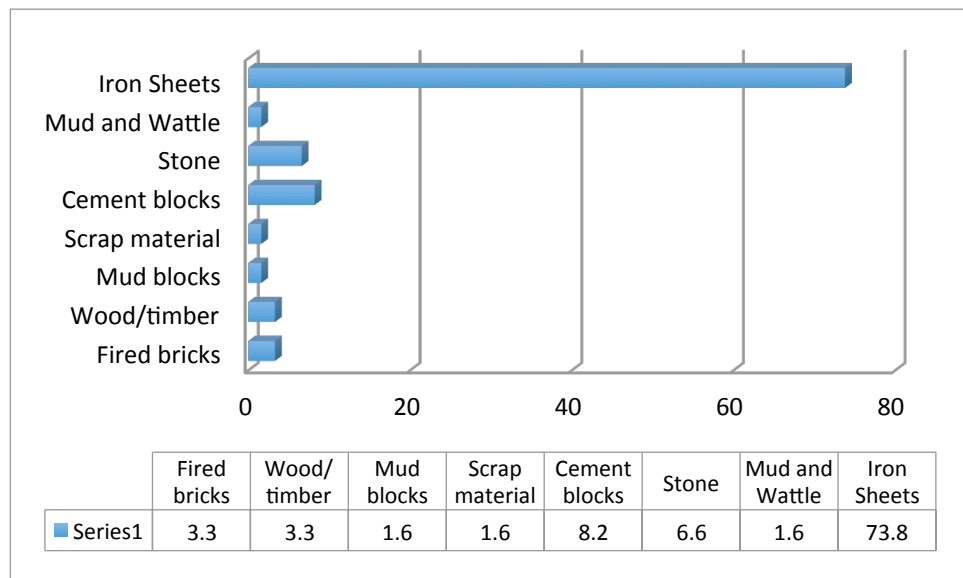


*Source: Field Survey, 2015.*

Tenements are housing units mainly composed of at least 5 single rooms arranged in a line and made of iron sheets with concrete floors. The flats are made of concrete blocks; some have an upper extension made of iron sheets. About 95% of the respondents noted that the main roofing material in the settlement is iron sheet. Charts 11 and 12 depict these findings.

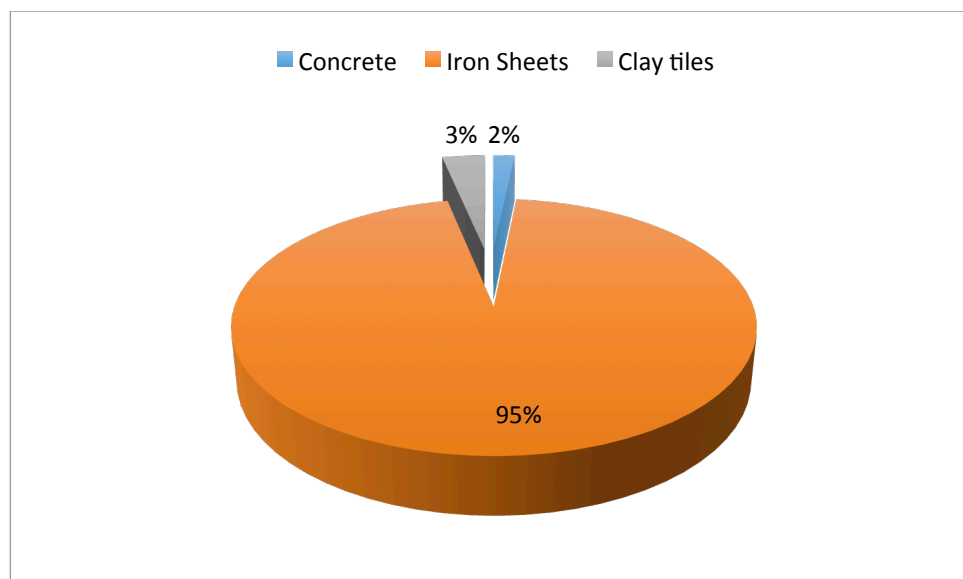


**Chart 11: Main Type of Building Material Used on Walls**



*Source: Field Survey, 2015.*

**Chart 12: Main Roofing Material**



*Source: Field Survey, 2015.*

There is poor sanitation and the resident dispose wastewater just at their doorsteps. For example, 73% of the respondents in Mathare Kosovo said that they dispose wastewater on open drainage as compared to 44% of the respondents in Kambi Moto. The respondents in Mathare Kosovo noted that they

do not care much about how they dispose waste because they are not the owners of the structures and they do not have any regulations that govern them. Similarly, solid waste is dumped indiscriminately within the settlement.

Essentially, the findings indicate that 55% of the respondents in the informal settlements feel that their current land tenure affects what they can do on the land. Therefore, current tenure status in both the settlements affects how land is used, as people are not willing to invest much due to fear of eviction even though some have the ability to carry out investments. Thus they build temporary structures to reduce the loss in investment in case of demolition. In addition, participants from the focus group discussions argued that due to lack of legal ownership documents of the land, landlords and tenants alike are not able to develop land and feel safe that law will protect their investments and property. One of the key informants, who works with the National Land Commission (NLC) in a senior management position argued that:

*“...because one is not assured of their ownership of the land they occupy, one has to be sensitive to the fact that anytime the rightful owner could claim it. With this in mind, majority of these dwellers carry out land use activities and development in a manner that should the inevitable time to move come, they are able to do so quickly without losing much investment. This is exemplified by the proliferation of many temporary structures and little investment in infrastructure”*

These arguments resonate with the findings by Gelder who noted that illegal slum dwellers, living on property owned by another party, will be reluctant to devote significant amounts of resources to their dwellings as long as the terrain does not legally belong to them as they stand to lose the fruits of their investment.<sup>9</sup> Generally, respondents argued that their precarious tenure situation has led to construction of temporary structures, poor sanitation, and poor waste

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<sup>9</sup> Jean-Louis Van Gelder, “Legal Tenure Security, Perceived Tenure Security and Housing Improvement in Buenos Aires: An Attempt towards Integration” *International Journal of Urban and Regional Research* Volume 33.1 (March 2009) p.126–46 < <http://agoralogin.research4life.org> > accessed 14th March 2014

disposal as the government has hitherto not been enthusiastic in providing better services.

#### 4.3: Does Securing Land Tenure Lead to Sustainable Land Use in Informal Settlements?

A majority of the respondents in this study (75%) argued that securing land tenure would affect how they use the land. The various justification for the above statement given by occupiers of these settlements is that securing of tenure would stir better development, that is, construction of better houses as well as physical infrastructure, one can secure loan from which they can develop the land, one can sell the land at higher prices or even have change or add the current use. If tenure is secured, a number of residents also felt it would give landlords better chance to build permanent residential structures as well as give the country government a chance to plan the area. Table 5 illustrates these responses.

**Table 5: Respondents' Perception on the Impact of Securing Tenure**

PERCEPTION		FREQUENCY	PERCENT
<b>Valid</b>	Better development, that is, construction of better houses	20	16%
	Can change or add the current use	14	12%
	Can get a loan from which I can develop the land even better	11	9%
	I can sell the land at higher prices	9	7%
	The landlord will evict us to construct permanent houses	6	5%
	The settlement can be re-planned	32	26%
	Total	92	75%
<b>Missing</b>	Not Applicable	30	25%
<b>Total</b>		122	100%

*Source: Field Survey, 2015*

Similarly, about 90% of the respondents in Kosovo and Kambi Moto were in agreement that secure tenure would affect how the residents manage their environment. They argued that when people own title deeds, they will carry out developments which are sensitive to environment and without secured tenure, incidences of land grabbing especially of areas meant for sanitation such as drainage, garbage collection points and sewer lines increase. The respondents said that they would manage and care for the environment more if they knew that the land was theirs or rather if the land was titled to them.

This relationship can be established where the respondents argued that if they owned land for sure they would take care of their respective plots and put measures such as warning tenants not to dump near or onto the plot, do landscaping around their plots as well as put up designated dumping spots and bins. Some argued that they would provide waste bins for garbage separation within the units, redevelop the drainage system into closed drains to avoid unsightly sights within the settlement, observe the riparian reserve as well as dig pit latrines instead of draining the waste to the river.

Some felt that the inability to develop since they are not land owners make them hesitate to undertake any sustainable developments in the area such as construction of storm water drainages and waste collection initiatives. One respondent noted:

*“... In a situation whereby the person is a tenant, they throw solid waste without care... Without secured tenure, people through corruption grab areas meant for sanitation such as drainage, garbage collection points and sewer lines...”*

Another respondent noted;

*“If land tenure is provided as communal, people are able to keep each other accountable they own the land as a community. They carry out environmental management practices such as community cleanups together”*

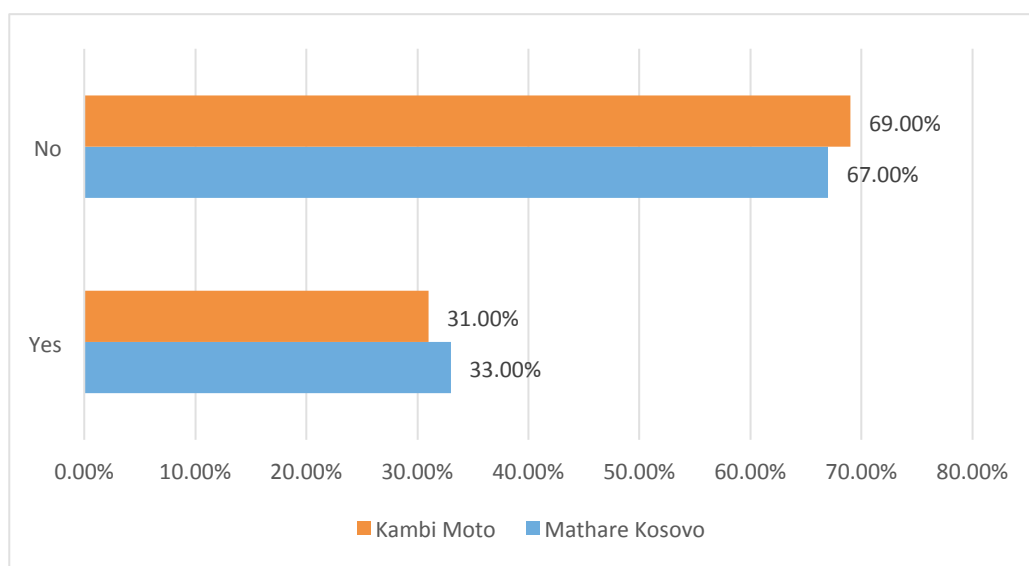
Nevertheless, there were those who felt that improving tenure security would not necessarily lead to sustainable land use. This argument was further reiterated by one of the Directors of a non-governmental organization that works with informal settlement. The key informant argued that demand for daily living determines how land is organized and used within these informal settlements. Thus according to her, construction of informal residential units, informal schools, churches and business is in response to the social, economic and spiritual needs of the settlement dwellers. It is therefore this felt need to satisfy basic human needs that influences land use in these settlements rather than sustainability nuances.

Indeed, the respondents who held the opinion that improving tenure security would not necessarily lead to sustainable land use noted other aspects that would be important. They argued that attitude; behavior and environmental sensitization of landowners and land occupiers were the major factors influencing environmental management. Hence even if people were given land or own land, unless these factors change there would be limited impact on how people manage the environment. One respondent argued,

*“...you can bring that transformation by securing land tenure but by the end of the day, it is how the people residing in the area will manage the place that matters”.*

Therefore, according to these respondents, behavioral change in addition to securing tenure is key in ensuring better land use and environmental management. In the context of promoting sustainable land use, the government usually midwifes this behavioral change through land use control mechanisms. Within these informal settlements, there was an indication though not from a majority of the respondents that there are regulations that guide the use of land. In Kosovo, only 33% of the respondents confirmed that these regulation exists as compared to Kambi Moto settlement where only 31% of the respondents concurred. It was clear that a majority of the respondents were not aware of the existence of any such regulations as illustrated in chart 13.

**Chart 13: Awareness of Regulations that guide Household's Use of Land.**



*Source: Field Survey, 2015*

Another key informant working with NLC argued that there are no land use control mechanisms in the informal settlements because of the current tenure noting that existing land use control is based on ad hoc propositions by local settlement administrators and people who have invested on the land. Therefore, due to low government influence over the current land use in these areas exemplified by the lack of adequate government control mechanisms, the few regulations that exist are informal social contracts between community members or between landlords and their tenants.

Some of these regulations include; ensuring that one's compound is clean, restrictions on disposal of both solid and liquid wastes indiscriminately, and regulations on the use of land where permission must be sought from the settlement Chairperson or Chief before changes in land use are effected. In cases where one does not comply with these regulations, a penalty is awarded mainly in the form of a fine, one may also be asked to revert the change in use of the land to its original state or one is taken to the Chief who is responsible for determining 'appropriate' cause of action.

Fundamentally the researcher observed that those respondents who were living in permanent units observed a modicum of good hygiene and maintained a clean environment. They had strict rules regarding dumping of solid waste and disposing wastewater. The community members enforced these unwritten rules and whenever a resident was found to have defied the rules, the members forced the person to clean all the settlement or they dump waste at his/her doorsteps as a punishment. More so, when the offender persists and does not adhere to the rules, the community members could evict him/her from the house.

#### **4.4: Chapter Conclusion and Discussion**

The findings presented in this study show that with the prevailing insecure tenure, urban dwellers in the informal settlements lack incentives to engage in any meaningful sustainable land use. This scenario ensues because residents are not assured of their ownership of the land they occupy, thus they are sensitive to the fact that anytime the rightful owner could claim the land. With this in mind, majority of these dwellers carry out land use activities and development in a manner that should the inevitable time to move come, they are able to do so quickly without losing much investment. In addition, due to lack of legal ownership documents of the land, landlords and tenants alike are not able to develop land and feel safe that law will protect their investments and property.

Through theoretical exposition of dynamics of secure land tenure and sustainable urban land use, a strong correlation is evident. For example, various commentators have argued that when property rights to land are secured then the respective right holders are able to make decisions on how they can use their land to achieve their desired objectives. For this research, ‘desired objective’ has been conceptualized to imply decisions that lead to sustainable land use and eventual environmental sustainability within informal settlements. Therefore, a fundamental question that the study findings sought to answer related to the impact of providing tenure security on land use in the informal settlements. A majority of the respondents argued that they would use the land sustainably and also contribute to environmental management. Nevertheless, there were those

who felt that improving tenure security would not necessarily lead to sustainable land use.

Therefore, the findings herein show that tenure security has potential of contributing towards sustainable land use in informal settlements. However, as a stand-alone initiative, such tenure security may not be an effective tool in ensuring that all beneficiaries of secure tenure sustainably use the land. This is because tenure security bestows on an individual some modicum of private user rights, which may generate far-reaching effects for other right holders and the public at large. Hence the need for an effective land use control mechanism that manages individual tenure security holder's interest vis that of the public towards ensuring the sustainable utilization of land.

Conversely, Abrams identifies about five public purposes for which land use controls are employed in the public interest: guide the *use* of land to promote the advantageous development of the community; curb the *misuse* of land so that it will not injuriously affect the interests of the community; prevent the *abuse* of land; regulate the *nonuse* or *disuse* of land and guide the *reuse* of land for more appropriate purposes.<sup>10</sup> Therefore, to assure public interest in urban land use, the government employs a guidance system, which constitutes land use planning, political system (agents and factors involved in governmental decisions), decision guides (policies, plans, proposed programs) and action instruments (regulations, public investments, and incentives/disincentive tools).<sup>11</sup> Fundamentally, regulations based on the police power (zoning, subdivision regulations, housing, health and building codes) restrain the type, intensity, and location of activities, land use, and development and reinvestment processes.<sup>12</sup>

Police power or development control is the power of the State to regulate property rights in land, and is derived from the State's responsibility to ensure

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<sup>10</sup> Charles Abrams et al., *Urban Land Problems and Policies*, Housing and Town and Country Planning Bulletin 7, United Nations, (1953) as quoted by Stuart Chapin F. Jr., *Urban Land Use Planning* (2<sup>nd</sup> edition), University of Illinois Press, (1965)

<sup>11</sup> Stuart Chapin F. Jr and Edward J. Kaiser, *Urban Land Use Planning* (3<sup>rd</sup> ed), University of Illinois Press (1979)

<sup>12</sup> Ibid



that the use of land is not injurious to the public interest. Hence, 'police' power seeks to limit the use of land in order to protect public welfare from any dangers that might arise from its misuse. In Kenya this functional responsibility is largely in the domain of the Physical Planning Act (Cap 286), which contains provisions for the preparation, and implementation of physical development plans and development control mechanisms for implementation of the plans. Article 66 (1) CoK provides that the State may regulate the use of any land, or any interest in or right over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning.

It is therefore necessary that the respective government agencies leverage these land use control powers available to them to facilitate sustainable land use in the informal settlements. Essentially, it is important to note that improving tenure security can only assure sustainable land use in the informal settlements when it is supported by appropriate land use control measures - land use law, planning and development control. These land management instruments empower a community and other social institutions with police powers to permit or exclude land uses that may be offensive to the environment. However, land use controls are usually only effective when the problem being solved is clearly identified, the public is supportive and the implementing authority has adequate enforcement capacity and will. With reference to informal settlements, these controls should be facilitative and cognizant of the situation of the urban poor for effective compliance.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1: Conclusion**

While reflecting on all informal settlements in Nairobi, but using Kosovo and Kambi Moto informal settlements as case study areas, this research sought to find out whether improving tenure security in urban informal settlements would lead to sustainable land use and eventual improvement of the environment. The research hypothesis adopted argued that land tenure security has an impact on sustainable land use and eventual environmental sustainability within informal settlements.

Based on the findings it is demonstrated that the current tenure arrangements, which is insecure, has a negative implication on land use. Majority of the respondents have argued that lack of secure tenure jeopardizes possibilities for sustainable land use. The illegal nature of the tenure impedes optimum use of the land, as residents avoid making any valuable investment for fear of it being destroyed by the legal owner of the land. This phenomenon is characterized by land use activities that greatly affect the environment such as indiscriminate waste disposal, unsustainable urban agriculture practices, and harborage of riparian reserves among others.

Secondly, a majority of the respondents also agree that securing tenure would positively impact on how they use the land. However, there are those who also argue that improving tenure alone is not sufficient in promoting sustainable land use. Conversely, the findings show that despite tenure security being an important element in promoting sustainable land use, there should also be an effective land use control mechanism.

Therefore, to prevent any further degradation of the environment within these informal settlements, it is important to curb the prevailing unsustainable land

use. Doing so requires resolving land tenure by clarifying its content and securing rights to it through an appropriate and negotiated legal framework. Moreover, integration of improved tenure security with land use control strategies, implementing, monitoring and enforcement of negotiated standards have the potential of leading to sustainable land use and sound environmental management. These recommendations are discussed in the subsequent section.

## **5.2: Recommendations**

In line with the findings and conclusions arrived at in this study, a number of recommendations have been proffered. These recommendations have been organized along four thematic areas touching on legal reform, actions for both national and county government and respective agencies, actions for the informal settlement community, and lastly general implementation recommendations. These are discussed in detail below.

### **5.2.1: Legal Reform to Facilitate Sustainable Land Use in Informal Settlements**

Because the poor living in informal settlements do not have their rights to land and property secured, they are less likely to engage in any deliberate effort to conserve and protect both their immediate environment and any other natural resource therein. Moreover, literature reviewed, especially works by Kibwana<sup>1</sup> argue that the problem of environmental mismanagement within informal settlements ensues largely because they have not been targets of land planning policy, law and activity; that the intense and often irresponsible use of land occurs because, among others, the settlers expect imminent eviction. Kibwana further argues that hitherto, Kenya's environmental law has tended to be linked to ownership of land where if an occupier does not have legal rights to land, then environmental law cannot reach him/her sufficiently to control environmental degradation. Therefore, to ameliorate the unsustainable land use in informal settlements, the following legal recommendations are advanced:

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<sup>1</sup> Kivutha Kibwana, "Land Tenure, Spontaneous Settlement and Environmental Management in Kenya" in Smokin C. Wanjala (ed), *Essay on Land Law: The Reform Debate in Kenya*, Faculty of Law, University of Nairobi, (2000) Pg. 105

***a) Recognition and protection of land rights of those in informal settlements***

Land use is based on certain rights such as ownership and right of use, which can be determined either by societal regulations or by private agreements and decisions. In the informal settlements, these rights are critical in ensuring that those who occupy the land are protected against arbitrary eviction/demolition; encouraged to carry out investment and house improvements; are enabled to access infrastructure and public services; and are enabled to leverage equity for credit.<sup>2</sup> Nevertheless, the recognition and protection of the land rights of those in informal settlements continues to be a largely contested affair riddled with various claims and counter claims from the government, landowners, interest groups such as NGOs and the slum dwellers. This is despite the current reformed land law dispensation.

For example, Land Act 2012, which contains Kenya's substantive land law, provides some entry point to addressing land rights of squatters on private, community or public land. Section 160 (2) (e) of the Act provides that, with respect to squatters, the National Land Commission shall have the powers to make regulations; (a) to establish appropriate mechanisms for their removal from unsuitable land and their settlement; (b) to facilitate negotiation between private owners and squatters in cases of squatter settlements found on private land; (c) to transfer unutilized land and land belonging to absentee land owners to squatters; and (d) to facilitate the regularization of existing squatter settlements found on public or community land for purposes of upgrading or development. Nonetheless, provisions in the Land Registration Act 2012 do not seem to categorically provide latitude for this philosophy to thrive. Section 24 of the Act on the effects of registration provides that: (a) the registration of a person as the proprietor of land shall vest in that person the absolute ownership of that land together with all rights and privileges belonging or appurtenant thereto; and (b) the registration of a person as the proprietor of a lease shall vest in that person the leasehold interest described in the lease, together with all

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<sup>2</sup> Geoffrey Payne (ed), *Land, Rights & Innovation: Improving Tenure Security for the Urban Poor*, (ITDG Publishing, 2002)

implied and expressed rights and privileges belonging or appurtenant thereto and subject to all implied or expressed agreements, liabilities or incidents of the lease.

The registered owners of land on which squatters occupy have continually used the above provision to justify the need to evict the squatters. There is therefore need for NLC to proceed with urgency to prepare the regulations as envisaged under sections 160 (2) (e) of the Land Act 2012, which have the potential of facilitating the access of a modicum of land rights to those in informal settlements. It is important to note that despite the provisions under section 24 of the Land Registration Act 2012, section 28 of the same act still provides sufficient legal ground to enable NLC proceed with the preparation of regulations in respect to land access by squatters. Specifically, section 28 provides for overriding interests that all registered land is subject to. Of import here include; rights of compulsory acquisition, resumption, entry, search and user conferred by any other written law; rights acquired or in process of being acquired by virtue of any written law relating to the limitation of actions or by prescription; any other rights provided under any written law.

***b) Towards an innovative approach of securing tenure through regularization***

It is evident that one cannot develop a piece of land unless his/her rights - usufruct, leasehold, freehold or any other - on that land are legally specified and uncontested. Building from the social relations theory in property, this study recommends and positions the continued clamor for occupancy rights, property rights, land rights and ultimately environmental rights by the urban poor on the provision of secure tenure. Such secure tenure has potential of providing incentives to the individuals that would lead to sustainable land use and eventual improvement of the environment. Security of tenure should be seen as a prerequisite in an incremental tenure regularization process, focusing particularly on the protection as opposed to the eviction, of irregular settlement occupants and not on their immediate regularization in legal terms. That for many informal settlements dwellers without security of tenure, their main

concerned is about being able to live a life where their rights to security of tenure are treated as seriously as human rights law provide.

There is an array of innovative tenure approaches targeting informal settlements that this study recommends. Specifically, UN-Habitat in its report titled '*Enhancing Security of Tenure: Policy Directions*' discusses a number of policy responses to tenure insecurity that national and local governments, the international community and civil society continue to grapple with.<sup>3</sup> Some of these include, upgrading and regularization; titling and legalization; land administration and registration; legal protection from forced eviction; and addressing violation of security of tenure rights. Some of these are discussed below;

- ***Upgrading and Regularization***; the report identifies about three forms that upgrading and regularization can take to include; regularization efforts that simply recognize the *status quo*, thus removing the threat of eviction, but not providing formal security of tenure to residents; regularization that recognizes the various forms of interim or occupancy rights without the provision of formal tenure; official regularization process that recognize the legitimacy of the process by which the urban poor have acquired land for housing without necessarily providing legal; tenure rights. This study proposes that occupiers of land in informal settlements can have *de facto* security of tenure coupled with varying degrees of legal tenure; and that governments can recognize security of tenure, but without officially regularizing the community concerned by probably issuing interim occupancy permits or temporary non-transferable leases that provides some form of security of tenure. Policy should also focus on non-legal strategies that can achieve tenure security such as increasing the perception of security of residents, rather than placing too much

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<sup>3</sup> United Nations Human Settlements Programme (UN-Habitat), *Enhancing Security of Tenure: Policy Directions*, (Earthscan, London, 2008) <  
[mirror.unhabitat.org/pmss/getElectronicVersion.aspx?nr=2596&alt=1](http://mirror.unhabitat.org/pmss/getElectronicVersion.aspx?nr=2596&alt=1)>

emphasis on ownership. These could be achieved through administrative recognition such as resolutions by the county assemblies, government circulars, among others rather than legal recognition as stipulated in the land laws. Therefore, tenure security being partly a matter of perception can be safeguarded under various forms - through clear, long-term rental contracts, or formal recognition of customary rights and informal settlements, with accessible and effective dispute mechanisms, provided the rights of land users and owners are clear.

- ***Titling and Legalization***; under this policy option, titling which leads to the provision of freehold title is identified to have a number of advantages including enabling households use their title as collateral in obtaining loans; helping local authorities to provide services more effectively, and to integrate informal settlements within the tax system; improving the efficiency of urban land and property markets; empowering households by giving them more political influence and voice; increasing the land user's investment incentives. The report however notes that the process of titling is usually expensive as it requires formal surveys and a rigorous land management and regulatory framework – a prerequisite many developing countries cannot afford. In addition it is noted that titling may be detrimental to some households living in informal settlements especially those with vulnerable legal and social status i.e. tenants/subtenants on squatter land, newly established occupants who are not considered eligible, single young men and women and female heads of households. Vulnerability to dispossession is identified as the most negative impact of titling. Therefore the report notes that the provision of titles may reduce rather than increase security of tenure. Syagga advises that tenure legalization becomes problematic in reconciling the varying interests of stakeholders in the slum settlements and that this approach is

complex and takes very long to implement. Moreover, he notes that in the Kenyan context, four interested groups including tenants, resident structure owners, non-resident structure owners and land owners exists thus one wonders who will qualify to get titles in such a scenario. In his opinion he says that it is not conceivable that there is enough land in any given settlement to be parceled out individually to all residents.

- ***Land Administration and Registration;*** land administration, which is defined as the way in which security of tenure rules are made operational and enforceable and when linked to titling, the administrative aspects (allocating rights in land, determining boundaries, developing processes of exchanging land, planning, valuation and adjudication of disputes) of how tenure rights are accorded and managed by the civil authorities concerned, has been faulted to not automatically provide security of tenure. The need therefore for new and more appropriate approaches has been identified and should include the following components: decentralized technical process that are transparent and easily understood by local people; land information management systems that can accommodate both cadastral parcels and non-cadastral land information; new ways of providing tenure security to the majority through documentation of rights and boundaries for informal settlements without using cadastral surveys, centralized planning and transfer of land rights by property lawyers; accessible records in terms of location and user friendliness; new technical, administrative, legal and conceptual tools.
- ***Addressing Violation of Security of Tenure Rights;*** this, the report says has been addressed by a number of pronouncements especially the 1997 Maastricht Guidelines on Violation of Economic, Social and Cultural Rights which provide clarity as to which ‘acts of commission’ and ‘acts of omission’ would



constitute a violation of rights. These guidelines can therefore be used to develop a framework for determining the compatibility of national and local law and policy on aspects of tenure security.

Essentially, any policy approach preferred should clearly clarify the duties and responsibilities of the beneficiaries towards sustainable use of the land. The important point, with respect to efficient land use, is not whether there is communal or private ownership of the land, but whether the property rights vested in the system of tenure security provide the appropriate incentives for conserving the long-term productivity of the land. Some of these are discussed under land use control reforms in (c) below.

***c) Legal reform to facilitate use of adoptive Land-use control and regulations in informal settlements***

Land-use control and regulations primarily consist of about four tools. The first tool is subdivision regulations, which stipulate plot sizes, layout, and procedures governing the conversion of private land for public use. The second tool is building codes and regulations, which spell out how new structures are to be erected and which materials are to be used, standards for infrastructure provision, i.e. water, sanitation and drainage, electricity, roads. The third is zoning ordinances, which divide and categorize urban space in which certain uses/activities are permitted/prohibited such as residential, commercial, industrial, public/open space, etc. Zoning regulations also specify the types of structures, plot sizes, shapes, locations, densities allowed in each zone. Lastly, urban planning, which, based on forecasts and assumptions about population growth, economic dynamics, social factors, etc, provides a blueprint and a reference framework for current and future urban growth and development will take. Moreover, the urban plans usually provide the basis for the other regulatory/control instruments.

When applied innovatively, these land use control instruments can promote sustainable land use and environmental management. Nevertheless, restrictive land use regulations domesticated in some of these instruments such as the

Physical Planning Act (Cap 286) and the Building Code invariably lead to informality characterized by illegal occupation of land, non-adherence to building codes and infrastructure standards and the illegality of the land on which a house is built and the non-conformity of the house to building standards and codes.

The Existing urban planning standards and regulations are already becoming practically irrelevant in informal settlements, except for their creating a psychology of illegality' or informality' on the part of those who develop, build or transact in such settlements thus, one way or the other, unnecessarily increasing the cost of self-provision of housing. As of now, it might be realistic to propose that urban planning standards and regulations be selective and minimalist. That is, building codes, subdivision and infrastructure standards and zoning laws need to be updated or revised downward in such a way that they will reflect current realities: they need to be based on the actual, not the desired, capacity/capability of governments to guide, provide and enforce. As regards informal settlements, the formal system must focus on establishing and enforcing, together with the participation of the inhabitants, minimum public safety and environmental standards.

***d) Innovative use of interests in land to promote sustainable land use in the informal settlements***

Kenya inherited its land law regimes from the English common law, which provides for interests in land vis a vis absolute ownership. Therefore, under English law the following are the major interests in land recognized in Kenya; estates, encumbrances and servitudes. Of interest to this study are servitudes, which can be used to promote sustainable land use in informal settlements. These should be inbuilt in the land tenure regularization approach both for slums on public or private land.

Servitudes are rights that a person acquires over another person's piece of land. There are three main categories of servitudes recognized under Kenya law - easements, profits and restrictive covenants – for which the last two are fundamental to this recommendation. For example, profits which connote a right

which allows someone to go over another person's land and take something from the land for his own benefit can be an effective tool used to allow squatters benefit from land they currently occupy. They can be allowed to carry out small-scale land use activities such as urban agriculture, which allows them to earn some income. They would thus be encouraged to further use the land sustainably because they see the value they get from it.

On the other hand, restrictive covenants which refer to agreements under seal between two land owners whereby one of them promises the other that he/she will not do a certain thing on the land for the benefit of another person's land also offer opportunity that can be leveraged. In this case, the law of restrictive covenants provides an important means by which landowners may control the use of their land in the informal settlements by restricting the nature of activities that are allowed. The most important characteristic of a restrictive covenant is that it binds even those who were not party to the original bargain hence irrespective of the dynamics of population change in these settlements, the new occupiers would still be expected to comply.

When law and social practice institute rights of use or access for non-owners, they limit the owners' property to conform to expectations implied in the conceptual meaning of "property."<sup>4</sup> When a political community entitles non-owners to claim use or access rights on the land of others, it recognizes the interests of others in "using" the land to conduct each of their particular activities.<sup>5</sup> However, the law usually reflects a normative judgment that landowners deserve domains of "use" much broader than the activity-specific "uses" that go with use or access rights.<sup>6</sup> Therefore, effective implementation of these tools requires a negotiated approach between the landowner and those occupying and using the land. The results of the negotiated approach should ensure that the property rights of the landowner as stipulated under article 40 of the Constitution are respected.

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<sup>4</sup> Eric R. Claeys, 'Bundle-Of-Sticks Notions in Legal and Economic Scholarship' *Econ Journal Watch Symposium (Property: A Bundle of Rights?)*, Vol. 8, No. 3, September 2011, pp. 205-214

<sup>5</sup> Ibid

<sup>6</sup> Ibid

### **5.2.2: Effective implementation of Police Power by National and County Government**

This study emphasizes the enormous responsibility bestowed both on the national and the county government to ensure a clean environment for all its citizens. It has already been identified under the theoretical framework that social institutions, particularly under the national and county government should use the land managements powers of eminent domain and police power as provided in existing land laws to in addition to improving tenure security, moderate the three land use determinants – economic determinants, socially rooted determinants and public interest - towards sustainable land use in the informal settlements. It is recommended that this be done under the auspices of land use planning where the hitherto neglected informal settlements can be given some serious attention.

As a conscious activity planning is expected to bring order on space. However both the process of bringing this order and the resultant benefits goes beyond physical organization of land uses on space. Based on this, the Constitution bestows the role of achieving Chapter 4 on the Bill of Rights, which entrenches social, economic and environmental benefits to all citizens to planning. For example, comprehensive implementation of Section 42(a) which provides that every citizen has a right to clean and healthy environment and Section 43 (a) which provides for rights to health care services (b) accessible and adequate housing with reasonable standards of sanitation (c) clean and safe water in adequate quantities can only be realized through planning with the national level of government providing policy directions inform of a national land use policy/plan, national spatial plan, and regulations on squatters access to land which are then localized at the county level.

Based on Section 25 of the Physical Planning Act (Cap 286) which states that the Director may declare an area with unique development potential or problems as a special planning area for the purpose of preparation of a physical development plan irrespective of whether such an area lies within or outside the area of a local authority, provides an opportunity that may be used to declare

informal settlements as special planning areas to enable planning and development. Nevertheless, under the current constitutional dispensation, both the functions of plan preparation and development control have been devolved to county governments with the national government being left with the responsibility of giving an overall policy direction. Specific provisions on the raft of plans to be prepared by the counties are contained in the County Government Act 2012 and the Urban Area and Cities Act 2011. For example Section 111(1) of the County Government Act 2012 envisages a number of plan typologies, which shall be the instrument for development facilitation and development control within the respective city or municipality. These plans include; (a) city or municipal land use plans; (b) city or municipal building and zoning plans; (c) city or urban area building and zoning plans; (d) location of recreational areas and public facilities. In addition, under Urban Area and Cities Act 2011 Section 36 (3), county governments are mandated to initiate an urban planning process for every settlement with a population of at least two thousand residents.

### **5.2.3: Informal Settlement Communities Responsibility to Maintain a Clean Environment**

The Constitution (2010) directs that every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. Section 3(1) of EMCA 1999, also bestows a sense of duty on every person to safeguard and enhance the environment. Therefore, occupiers of land in informal settlements have responsibility to maintain a healthy environment through sustainable land use irrespective of their current tenure situation. Informal settlement communities should take up this responsibility by among others up-scaling the already existing initiatives such as community cleanup days and also by taking action to prevent unreasonable use of the land by individuals both within and out of the settlement, which unjustifiably interferes with the reasonable comfort and enjoyment of the use of land by the whole community. Other than the environmental pollution that is internally generated within the

informal settlements, there is a considerable contribution of the same from other neighboring land users especially institutions and industries located in close proximity tot the informal settlements. For example, in Mathare Kosovo, the riparian reserve is polluted by among others industrial waste. Hence, the community both as individuals or community groups and with support from the non-governmental organizations should pursue legal redress.

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# APPENDIXES

## Appendix 1: HOUSEHOLD QUESTIONNAIRE

UNIVERSITY OF NAIROBI

CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY  
(CASELAP)

Thesis Research - Master of Arts in Environmental Law  
HOUSEHOLD QUESTIONNAIRE

**RESEARCH TITLE:** IMPLICATIONS OF LAND TENURE SECURITY ON SUSTAINABLE LAND USE IN INFORMAL SETTLEMENTS

**RESEARCH PURPOSE:** The main concern of this research is to find out whether improving land tenure security would lead to sustainable land use and eventual improvement of the environment in informal settlements.

**Declaration:** The information and data collected will be confidential and is intended purely for the research study being undertaken for a thesis that forms part of the requirements to complete a Master of Arts in Environmental Law at the Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi.

**Student:** Olale O. Philip

**Reg. No:** Z51/69141/2013

**Research Assistant:**

.....**Time:**.....**Date:**.....**QNo**.....

### Section 1: SETTLEMENT PROFILE

1.1	Settlement name [1] Mathare Kosovo [2] Kambi Moto	
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### Section 2: RESPONDENT'S CHARACTERISTICS

<i>The respondent must be the household head or their spouse. The section should capture the details of the household respondent and his/her immediate family members' resident in the household.</i>		
2.1	Name of respondent (optional)	
2.2	Gender [1] Male [2] Female	
2.3	Age	
2.4	Relationship with the head of household [1] Head [2] Spouse [3] Child above 18 years	
2.5	Highest educational level attained by respondent [1] Primary level [2] O-level [3] A-Level [4] Vocational Training [5] College Diploma [6] University Degree [7] Other (specify)	
2.6	What is household head's employment status [1] Casual laborer [2] Permanent employment (public sector) [3] Permanent employment (private sector) [4] Small scale business [5] Unemployed [6] Other (specify)	
2.7	Number of household members	

### Section 3: LAND USE

3.1	What was the original use of the land the household currently occupy? [1] Residential      [2] Commercial      [3] Transportation [4] Utility services      [5] Open space      [6] Riparian reserve [7] Other (specify)																																	
3.2	What is the current <i>main</i> use of the land the household occupy? [1] Residential      [2] Commercial      [3] Industrial [4] Other (specify)																																	
3.3	Describe the nature of land use in 3.2 above ..... .....																																	
3.4	What other land use practices are carried out by the household on the land they occupy? [1] Construction of temporary shelter      [2] Urban agriculture [3] Small scale business      [4] Light industrial activity [5] Other (specify)																																	
3.5	Describe the nature of land use practices in 3.4 above ..... .....																																	
3.6	What informs/guides the households current land use practices? [1] Economic factors      [2] Social factors [3] Community based regulatory factors      [4] Government regulatory factors [5] Other (specify)																																	
3.7	Explain answer in 3.6 above ..... .....																																	
3.8	What type of housing structure is on the land the household occupy? [1] Tenement      [2] Flat      [3] Studio House/Bedsitter [4] Bungalow      [5] Hut [6] Other (specify)																																	
3.9	<p>What is the nature of the residential unit</p> <table border="1"> <thead> <tr> <th>Structural Element</th> <th>Main type of Building Material</th> <th>State/Condition</th> </tr> </thead> <tbody> <tr> <td>Wall</td> <td></td> <td></td> </tr> <tr> <td>Roof</td> <td></td> <td></td> </tr> <tr> <td>Floor</td> <td></td> <td></td> </tr> </tbody> </table> <p><b>Options</b></p> <p><b>a) Type of material</b></p> <table border="1"> <tbody> <tr> <td>1. Fired bricks</td> <td>6. Mud &amp; wattle</td> <td>11. Concrete tiles</td> <td>16. Asbestos</td> </tr> <tr> <td>2. Mud blocks</td> <td>7. Iron sheets</td> <td>12. Grass thatch</td> <td>17. Cardboard</td> </tr> <tr> <td>3. Cement Blocks</td> <td>8. Clay tiles</td> <td>13. Concrete</td> <td>18. Cement screed</td> </tr> <tr> <td>4. Stone</td> <td>9. Shingles</td> <td>14. Wood/timber</td> <td>19. Ceramic tiles</td> </tr> <tr> <td>5. Stabilized earth</td> <td>10. Wooden parques/blocks</td> <td>15. Cement plaster</td> <td>20. Scrap material</td> </tr> </tbody> </table> <p><b>b) State/condition:</b> (1) Sound    (2) Needs repair    (3) Dilapidated    (4) Other</p>	Structural Element	Main type of Building Material	State/Condition	Wall			Roof			Floor			1. Fired bricks	6. Mud & wattle	11. Concrete tiles	16. Asbestos	2. Mud blocks	7. Iron sheets	12. Grass thatch	17. Cardboard	3. Cement Blocks	8. Clay tiles	13. Concrete	18. Cement screed	4. Stone	9. Shingles	14. Wood/timber	19. Ceramic tiles	5. Stabilized earth	10. Wooden parques/blocks	15. Cement plaster	20. Scrap material	
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3.10	What type of toilet is within the land the household occupy? [1] Shared pit latrine in the plot [2] Single household ordinary pit latrine [3] Single household improved pit latrine [4] Single household flush toilet/WC [5] Single household VIP latrine [6] None [7] Other (specify)	
3.11	Which type of disposal system is the toilet connected to? [1] Public sewer            [2] Pit latrine            [3] Septic tank or soak pit [4] Other (specify)	
3.12	What is the usual mode of disposing solid waste by the household? [1] Throw garbage in open space [2] Bury garbage in nearby open space [3] Disposed through public agency [4] Disposed through private garbage collectors [5] Open burning [6] Composting [7] Other (specify)	
3.13	How does the household dispose waste water? [1] Sewerage system            [2] Natural drainage            [3] Disposal in open space [4] Other (specify)	
3.14	Which type of storm water drainage system is found within the land the household occupy? [1] Open drainage            [2] Closed/covered drainage	
3.15	What challenges are faced by the household under the current land uses? ..... ..... ..... .....	
3.16	Are you satisfied with your neighborhood environment? [1] Yes            [2] No	
3.17	If Yes, Give reasons for your answer  [1] Its quiet and peaceful            [2] Availability of open spaces for recreation [3] Adequate accessibility            [4] Good hygiene [5] Less congestion            [6] More Secure [7] Adequate sanitation            [8] Other (specify)	
3.18	If No, Give reasons for your answer [1] Air and noise pollution            [2] No open spaces for recreation [3] Inaccessibility            [4] Lack of hygiene [5] Congestion            [6] Insecurity [7] Inadequate sanitation            [8] Other (specify)	
3.19	Are there regulations that guide how households use the land they currently occupy? [1] Yes            [2] No	
3.20	If Yes, kindly state some of these regulations. ..... ..... .....	
3.21	Who is responsible for enforcement of such regulations in the settlement? [1] Village elder            [2] Chairman            [3] Chief            [4] Youths [5] Landlord            [6] Other (specify)	
3.22	What penalty is meted on those who do not comply with the regulations? .....	

#### Section 4: LAND TENURE

4.1	Does the household own the land they occupy? [1] Yes [2] No	
4.2	If yes, how did you acquire the land? [1] Purchased [2] Inherited [3] Adverse possession [4] Allocated [5] Unlawful occupancy (forceful) [6] Other (specify)	
4.3	What is the tenure held in the plot occupied? [1] Leasehold [2] Free-hold [3] Customary [4] None [5] Other (specify)	
4.4	Do you have any land ownership documents? [1] Yes [2] No	
4.5	If Yes, which one? [1] Title Deed [2] Legal lease document [3] Allotment Letter [4] Temporary Occupation License [5] Written Agreement from village Administrator [6] Other (specify)	
4.6	What problems do you face due to your present land tenure status? [1] Eviction [2] Fear of eviction [3] Demolition [4] Lack of basic services [5] Inability to develop [6] Other (specify)	
4.7	What is your perception of security of tenure in this settlement? [1] Secure [2] Insecure	
4.8	What is the tenure of the house the household currently occupy? [1] Own [2] Rental [3] Employer's house [4] Tenancy at will [5] Others (specify)	
4.9	Do you have any housing tenure-ship documents? [1] Yes [2] No	
4.10	If Yes, which one [1] Legal lease document [2] Verbal Agreement [3] Written Agreement [4] Receipts for payment [5] Others (specify)	
4.11	What problems do you face due to your present housing tenure status? [1] Fear of eviction [2] Demolition [3] Lack of basic services [4] Inability to develop [5] Other (specify)	
4.12	Under your current tenural arrangement, what property rights do you have? (tick all the rights the household head considers that they have) [1] Rights to legally sell the land [2] Rights to change the current use [3] Rights to bequeath to next generation [4] Rights to make decision on use of land [5] None	
4.13	Does your current tenure status affect how you use the land you currently occupy? [1] Yes [2] No	
4.14	If Yes, explain How? ..... .....	
4.15	If No, explain Why? ..... .....	
4.16	In your opinion, if tenure is secured, would it affect how you use the land? [1] Yes [2] No	
4.17	If Yes, explain How? ..... .....	
4.18	If No, explain Why?	

	.....	
4.19	In your opinion, which of the following land rights is important to households in this settlement? [1] Rights to legally sell the land [2] Rights to change the current use [3] Rights to bequeath to next generation [4] Rights to make decision on use of land	
4.20	In your opinion, how would tenure be secured? [1] Private freehold [2] Private leasehold [3] Communal tenure [4] Other (specify)	

### Section 5: PARTICIPATION IN ENVIRONMENTAL MANAGEMENT

5.1	How attached are you to this place? [1] Not attached      [2] Slightly attached      [3] Very attached	
5.2	How important to you is this community? [1] Not important      [2] Slightly important      [3] Very important	
5.3	Are you aware of any environmental management practice/activity in this community? [1] Yes      [2] No	
5.4	If yes, which one? [1] Community clean-up [2] Garbage separation (at household level) [3] Central garbage collection point [4] Protection of open spaces [5] Other (specify)	
5.5	Do you participate in any of these environmental management practices/activities? [1] Yes      [2] No	
5.6	If No, Why? ..... ..... .....	
5.7	In your opinion, how does land tenure affect environmental management? .....	

## Appendix 2: KEY INFORMANT INTERVIEW SCHEDULE

### UNIVERSITY OF NAIROBI

#### CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY (CASELAP)

#### Thesis Research - Master of Arts in Environmental Law KEY INFORMANT INTERVIEW SCHEDULE

**RESEARCH TITLE:** IMPLICATIONS OF LAND TENURE SECURITY ON SUSTAINABLE LAND USE IN INFORMAL SETTLEMENTS

**RESEARCH PURPOSE:** The main concern of this research is to find out whether improving land tenure security would lead to sustainable land use and eventual improvement of the environment in informal settlements.

**Declaration:** The information and data collected will be confidential and is intended purely for the research study being undertaken for a thesis that forms part of the requirements to complete a Master of Arts in Environmental Law at the Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi.

**Student:** Olale O. Philip

**Reg. No:** Z51/69141/2013

**Time:**.....**Date:**.....**KII No.**.....

#### Section A: KEY INFORMANT PROFILE

1.1	Key informant's name .....	
1.2	Key informant's profession .....	
1.3	Key informant's experience in the profession ( <i>in years</i> ) .....	
1.4	Key informant's current job designation .....	
1.5	Name of organization where the key informant works .....	

#### Section B: GUIDING QUESTIONS

1. Generally, what land uses characterize informal settlements in Nairobi?
2. What are the drivers of the current land uses in these settlements?
3. Challenges faced under the current land uses
4. In your opinion, what are the key drivers/determinants of sustainable land use generally, and specifically in informal settlements?
5. What are the prevailing tenure arrangements in these settlements?
6. In your opinion, how does the current tenural arrangement impact on land use in these settlements?
7. In your opinion, if tenure for those living in informal settlements is secured, how is it likely to impact on land use?
8. If tenure were to be secured, which land rights would be important to communities in these settlements?
9. In your opinion, what policy measures should be adopted to facilitate sustainable land use in the informal settlements?

## Appendix 3: FOCUS GROUP DISCUSSION GUIDE

### UNIVERSITY OF NAIROBI

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#### Thesis Research - Master of Arts in Environmental Law FOCUS GROUP DISCUSSION GUIDE

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**Student:** Olale O. Philip

**Reg. No:** Z51/69141/2013

**Time:**.....**Date:**.....**FGD.No.**.....

#### Section A: SETTLEMENT PROFILE

1.1	Settlement name [1] Mathare Kosovo [2] Kambi Moto	
1.2	Size of the Group	

#### Section B: GUIDING QUESTIONS

1. What are the prevailing tenure arrangements?
2. What are the current land uses in the settlement?
3. What are the drivers of the current land uses?
4. Challenges faced under the current land uses
5. People's perception of their tenure situation
6. Opportunities for improving tenure situation
7. Residents perception on impact of upgraded tenure security on land use

## Appendix 4: OBSERVATION MATRIX

UNIVERSITY OF NAIROBI

CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY  
(CASELAP)

Thesis Research - Master of Arts in Environmental Law  
OBSERVATION MATRIX

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**Student:** Olale O. Philip

**Reg. No:** Z51/69141/2013

**Time:**.....**Date:**.....**OM.No.**.....

Write brief notes on the following

Item	Notes (condition)
Predominant Land use	
Nature of land use in the settlement	
Drainage	
Solid waste collection	
Waste water management	