

**LAND CONFLICT RESOLUTION MECHANISMS IN
KALIKILIKI SETTLEMENT, LUSAKA**

by

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of the requirements of the Degree of Master of Science in Spatial
Planning

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Lusaka

DECLARATION

I hereby declare that this dissertation is my own work. Neither the material nor any part of the thesis has been submitted in the past, or is being, or is to be submitted for a Degree in the University or any other University. All published work or material from other sources incorporated in this dissertation have been acknowledged and adequate reference thereby given.

I therefore present the dissertation for examination for the Degree of Master of Science in Spatial Planning to The University of Zambia.

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APPROVAL

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ABSTRACT

The high density of people living per unit area in Kalikiliki, which is an informal settlement, has created land use conflicts. The prevalence of these unresolved land use conflicts presents a challenge for settlement upgrading. Without resolving land use conflicts, settlement upgrading will be a challenge.

The first objective of the study was to identify the nature and causes of land use conflicts in Kalikiliki. The second objective looked at assessing the mechanisms for land conflict resolution in Kalikiliki while the third objective sought to assess the parameters that could be used to promote sustainable land use conflict resolution in settlement upgrading. The data was collected using snowball sampling for the community residents and the key informants were selected using purposive sampling. The information collected was analyzed using descriptive analysis with tables and frequencies, and thematic analysis.

The findings revealed that the main land use conflicts prevalent in Kalikiliki were land encroachments, conflicts of public interest, double land allocations, improper siting of pit latrines and indiscriminate dumping of solid waste. These land conflicts were caused by corruption within the community leadership structure, lack of a land register, limited accessibility networks, lack of conflict documentation, absence of a solid waste management system, limited land rights provided in the occupancy license and undefined plot boundaries.

The mechanisms used in the resolution of the identified land use conflicts were own negotiations between the two parties in conflict. Other mechanisms available to the Kalikiliki residents were negotiation with the help of local community institutions such as the Lusaka City Council, Ward Development Committee and the Zambia Police.

The parameters for sustainable land use conflict resolution include: a transparent and efficient Ward Development Committee to handle land use related conflict and local community conflict resolution institutions to employ a conflict resolution tool that promotes equity and agreement by both parties. Other parameters include documentation of land use conflict and their resolution, and enhancing security of tenure by increasing the land rights provided for in the occupancy license from only the building to the land surrounding the building.

The overall conclusion of the study was that the mechanisms of land use conflict resolution in Kalikiliki settlement are predominately negotiations, between individuals or through the leadership structures within the community. Therefore, in order to reduce land use conflicts in settlement upgrading, these community structures need to be enhanced with conflict resolution skills in order to deal with land use conflicts in a cooperative manner in order to generate mutually beneficial options for the parties involved in the conflict.

Key Words: Conflict resolution, negotiation, settlement upgrading,

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ABBREVIATIONS AND ACRONYMS

ADC	Area Development Committee
AESOP	Association of European Schools of Planning
CSO	Central Statistics Office
FAO	Food and Agriculture Organization
GLTN	Global Land Tool Network
GUO	Global Urban Observatory
LCC	Lusaka City Council
MLGH	Ministry of Local Government and Housing
UCLAS	University College of Architecture Studies
UN-Habitat	United Nations Habitat
UNCHS	United Nations Center for Human Settlements
WDC	Ward Development Committee

CHAPTER 1: INTRODUCTION

Conflict around land use planning is a recurrent feature of life in towns and cities in Africa (Wehrmann, 2008). These conflicts revolve around land use types and among various stakeholders within the settlements. Land use planning, is therefore, conceived as the process of dealing with conflicts among different land use types and stakeholders (Zhang *et al.*, 2012). A notable problem in land use planning is the presence of informal settlements in a City. In many African countries, informal settlements are a manifestation of poor urban management and the failure of planning systems to respond to urban growth and development (AESOP, 2012). Planning institutions have limited capacity to provide services and manage urban development and thus most developments in informal settlements occur outside the control of state laws and regulatory frameworks (Owei and Ikpoki, 2006).

Conflicts that involve land are a common phenomenon in the planning process. These conflicts include boundary disputes between neighbors, ownership conflicts due to inheritance wrangles, individual occupation of private land, conflicts of public interest and extending ones building on a neighbor's property (Majeke, 2005; Kombe and Kreibich, 2001). Other types of land use conflicts comprise boundary conflicts between chiefdoms or villages, group invasions of private or state land, squatter evictions through state authorities, double land allocations and illegal sale of private property (Wehrmann 2006).

Land use conflicts especially those to do with individual or group invasion or encroachment of land are caused by a number of factors some of which include; high demand for land, rapid increase in land values, lack of micro-finance options, shortages of land, vacant land which is undeveloped or has remained idle for a long period of time and political interference by political party cadres as causes of urban land conflicts (Chitonge and Mfuno, 2015; Kombe and Kreibich, 2001). Other causes include change of political and economic systems, imposition of foreign institutions not accepted by the community, poverty, unequal distribution of power and resources, deteriorating traditional values and structures, abuse of power and unregistered land transactions, conflicting legislations and dual tenure systems, centralized land use planning, corruption and non-implementation of land use

regulations, mismanagement of land and natural resources and the inadequacies in land delivery and planning systems; and rural urban migration (Campbell *et al.*, 2000; Wehrmann, 2006; Simposya 2010, UN-Habitat, 2010, AESOP, 2012; Lecourt and Baudelle, 2004).

The illegal status of many informal settlements, absence of land records and cumbersome court procedures often delays land use conflict resolution. This allows disputes to fester resulting in major backlogs of land disputes in the formal courts. At community level, local community institutions play a major role in the resolution of disputes including those involving land (Asperen, 2014). Thus many people especially those residing in informal settlements prefer to have their disputes heard by community leadership structures or community mechanisms of conflict resolutions which they feel are better placed to understand the prevailing community norms and challenges (Nabanda *et al.*, 2001). Conflicts involving land use are also prevalent in Kalikiliki, an informal settlement, in Zambia's capital City, Lusaka.

The emergence of Kalikiliki informal settlement is an example of the local authority's inability to absorb the large numbers of people migrating from rural areas into the City (Nchito, 2007). However, despite government recognition of the settlement in 1999, Kalikiliki still bears the status of an informal settlement and is characterized by poor and/or lack of essential basic services such as roads, water and a sustainable solid waste management system. The haphazard nature of the settlements development also limits the provision of services such as water and sanitation which are usually among the first services to be provided in an upgraded settlement (UNZA, 2013). In order to improve the livelihoods and environmental conditions, of the residents of informal settlements, the Lusaka City Council has identified 13 informal settlements that are earmarked for upgrading, including Kalikiliki settlement (LCC, 2014).

Thus upgrading interventions in Kalikiliki settlement need to take into account the land use conflicts in the settlement and develop strategies that will reduce these conflicts in future. The conflict resolution process must possess mechanisms for the management of conflicts that promotes compliance to land use regulations leading to environmental and socio-economic sustainability (Sze and Sovacool, 2013).

This research, therefore, sought to determine the types and causes of conflicts in Kalikiliki; the mechanisms used in land use conflict resolution and to identify parameters that can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process.

1.1 Problem Statement

The high density of people living per unit area in Kalikiliki settlement has created land use conflicts due to activities such as indiscriminate dumping of solid waste and land encroachments among others by the majority of people. The prevalence of these unresolved land use conflicts creates a challenge for settlement upgrading and subsequently better land use management. Therefore, without resolving land use conflicts, settlement upgrading will be a challenge. It is thus important to study conflict resolution mechanisms in Kalikiliki settlement that contribute towards sustainable land use conflict resolution.

1.2 Aim of the Study

To identify mechanisms that could be used to promote successful land use conflict resolution in a settlement earmarked for a upgrading.

1.3 Research Objectives

- 1) To assess the causes and types of land use conflicts in Kalikiliki settlement;
- 2) To identify the mechanisms used in the resolution of land use conflict in Kalikiliki settlement;
- 3) To identify parameters that can be used to promote successful land use conflict resolution in a settlement earmarked for upgrading.

1.4 Research Questions

- 1) What types of land use conflicts are experienced in Kalikiliki settlement
- 2) What are the causes of land use conflicts in Kalikiliki;
- 3) What mechanisms are used to resolve land use conflict in Kalikiliki;
- 4) What parameters can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process?

1.5 Significance of the Study

The development of parameters for sustainable land use conflict resolution will provide planners with a platform to enhance the resolution of land use conflicts in informal settlement upgrading. The study will also help to identify key elements for the successful resolution of these conflicts to achieve the best use of land. Successful resolution of land-use conflicts is crucial in spatial planning in light of the large number of informal settlements in Lusaka City that have been earmarked for upgrading. The findings of this research will thus contribute towards the enactment of regulations and prescribe a cooperative approach to conflict resolution that can be adopted with regards to informal settlements. This is particularly important as the approach used in the resolution of these land use conflicts determines what type of environment residents of the affected communities will live in. The findings will be relevant for planning professionals in settlement upgrading processes; policy formulation and provide a basis for further research.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews literature by various authors on land use and conflict. The first part of the chapter discusses the types and causes of land use conflicts followed by literature on the development of informal settlements generally and in Zambia. It also highlights the socio-economic characteristics of these settlements. Informal settlement regularization, upgrading and the mechanisms of land use conflict resolution in a number of are reviewed in the second section. The third part focusses on the parameters that are necessary for successful land use conflict resolution with a concluding section highlighting implications of the reviewed literature for settlement upgrading.

2.1 Land Use

In most societies, land has played a central role throughout history (Wehrmann, 2002). It is tied to a complex network of issues ranging from power relationships to economics and from symbolic attachments to systemic inequities (Kim and Dorjderem, 2012). An increase in economic activities, increases land use demands and consequently impacts on the environment. Land use has to do with the arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain it (FAO and UNEP, 1997). The objective of land use planning is to ensure that land and its resources are used efficiently for the benefit of the wider economy and population, while protecting the environment (GLTN, 2014). Since land is in fixed supply, many planning institutions are perpetually faced with growing conflicts about how land is managed and utilised (Goetz *et al.*, 2005). The management of land in many African cities is one of the most critical challenges facing many governments today. The exploitation of this resource is often a major source in triggering conflicts in many countries in Africa (UN-Habitat, 2010).

Zambia, in sub-Saharan Africa has on average an urban population of 34.7 percent while its capital City, Lusaka, has an urban population of 85 percent, residing on an area of 424km², with an estimated total population of 2.2 million (Republic of Zambia, 2011). The high urban population is attributed to rapid increase in population growth and rural urban migration (CSO, 2010). This large urban

population has created high competition for the limited available land as evidenced from the increase in subdivisions of agricultural land and subsequent conversion to residential land (LCC and ECZ, 2008). Lusaka City has 37 informal settlements housing 70 percent of City's population (World Bank, 2002). This population occupies only 30 of the total land area, with 49 percent of the land remaining unutilized (LCC and ECZ, 2008). As the population in the City increases, there is pressure for land which resulted in land encroachments and group invasions on vacant land or land which has remained undeveloped for a period of time (Chitonge and Mfunu, 2015).

2.2 Land Use Conflict

Land-use conflicts are complex disputes that involve individuals with diverse interests as well as environmental and social impacts that are often difficult to resolve (Wehrmann, 2006). The complexity of urban problems and the growth of towns and cities create tension on the land-use process (Turner, 1969). Land conflicts, whether peaceful or violent, produce negative consequences for individual people as well as for the entire community. Whenever there is a land conflict, someone suffers socio-economic consequences and in worst case scenarios people find themselves landless and/or without shelter (Wehrmann, 2008). In situations where formal institutions mandated to address issues of land conflicts are not accessible to residents of the community, local customary dispute resolution procedures are likely to fill the gap. In addition, these local community institutions may provide the only effective local remedy for land disputes in their respective settlements. However, many of these grass roots institutions are non-transparent or discriminate against women or marginalized groups (GLTN, 2014).

2.2.1 Types and Causes of Land use Conflicts

In many African countries, conflicts that involve land are a common phenomenon in the planning process. Land conflicts tend to differ significantly in form, scale and intensity depending on the location. Conflicts that occur in urban areas tend to differ from those prevalent in rural, coastal and war torn countries. This research focusses

on land conflicts occurring in informal settlements and peri-urban areas with a brief mention of land conflicts that are prevalent in rural and urban areas.

Rural land conflicts include; boundary disputes between neighbors and neighboring communities over land rights, ownership conflicts due to inheritance disputes, and conflicts on grazing and agricultural rights (Wehrmann, 2006). Other types of land use conflicts include boundary conflicts between chiefdoms or villages, displacement resulting from the construction of major projects such as mines or dams (Wehrmann, 2008, CCJP, 2014).

Land conflicts occurring in rural locations are resolved through the local traditional leaders, such as headmen or chiefs. Disputes that cannot be resolved at lower levels usually proceed to the senior and paramount chiefs (Asperen, 2014). In resettlement areas, parties in conflict can also approach the resettlement-scheme management for dispute resolution. Other options include seeking the help of agricultural officers or a government committee (Mudenda, 2006).

Urban land conflicts (which include informal and peri-urban areas) mainly border on occasional multiple sales of private property by individuals without administrative assistance, conflict arising from household mobility (trespassing), individual or group occupation of private land, building extension on somebody else's private land or public land, illegal lease/sale of somebody else's private land (Majeke, 2005; Wehrmann, 2006). Other types of land use conflicts include boundary conflicts between chiefdoms or villages, group invasions of private or state land, double land allocations and illegal sale of private property (Wehrmann 2006).

The cause of these urban land conflicts can be categorized under political, socio-economic and legal causes. Political causes include factors such as change of political and economic systems and the imposition of foreign institutions not accepted by the community (Campbell *et al*, 2000, UN-Habitat, 2010). Socio - economic factors are associated with increasing land prices, limited capital market, poverty, lack of micro-finance options, unequal distribution of power and resources (Simposya 2010, Chitonge and Mfune, 2015). Socio-cultural causes are depicted by deteriorating traditional values and structures, abuse of power and unregistered land

transactions, while legal causes embrace conflicting legislations and dual tenure systems (Wehrmann, 2006, UN-Habitat, 2010). The administrative causes of land use conflict comprise centralized land use planning, corruption and non-implementation of land use regulations, mismanagement of land and natural resources and the inadequacies in land management and planning systems especially in the developing world and rural urban migration (AESOP, 2012; Lecourt and Baudelle, 2004). Broadly, land use conflicts in literature reviewed are caused by increasing demand for land, failure in the land administration system and abuse of power through political patronage.

In Zambia, a study by Chitonge and Mfunne (2015) on urban land conflicts, identified shortages of land, vacant land which is undeveloped or has remained idle for a long period of time and political interference by political party cadres as causes of urban land conflicts. The shortage of land in Lusaka City is attributed to lack of and poor supply of serviced land, speculation on land, complex procedures in land allocation, inadequate planning and slow pace of issuance of tile deeds. The mushrooming of informal settlements in the City was also identified a major factor resulting in the shortage of land and consequently land conflicts (LCC and ECZ, 2008).

This study builds on the study conducted by Chitonge and Mfunne (2015) which focused on urban land invasion and the associated conflicts which were presided over in the formal courts of law. Specifically, this study sought to identify conflict resolution mechanisms available to the residents of the informal settlement of Kalikiliki who are not able to access the formal courts of law.

2.3 Development of Informal Settlements

As Cities expand and large numbers of people migrate to these areas in search of greener pastures, the Cities' capacity to absorb this additional population in terms of housing and service provision is limited (AESOP, 2012). The informal land market offers an alternative solution to the challenge of accommodation for these settlers (Asperen, 2014). The UN-Habitat (2003), estimates that 78.2 percent of City dwellers in developing countries live in informal settlements. The United Nations Center for Human Settlements (UNCHS) report, which highlighted the growth of slums in specific countries indicated that slums make up as much as 32 percent of

Sao Paulo, 33 percent of Lima, 34 percent of Caracas, 59 percent of Bogota in South America. In Africa, the report indicated that slums make up 44 percent in Maputo, 60 percent in Dar-es-Salaam, 70 percent in Luanda, and 85 percent in Addis Ababa (UNCHS 1996; Jenkins 2001). The growth of slums in other countries has reached a level where these settlements now constitute the essential characteristic of the urban landscape with specific cases such as Ethiopia with 99.4 percent, Chad with 99.1 percent, Afghanistan with 98.5 percent and Haiti with 85.7 percent of the citizens residing in slums (GUO, 2003).

Zambia, which has been identified as one of the most urbanized Southern African Countries has an urban population of 40 percent of the national population (CSO, 2010). Its capital City Lusaka is home to thirty seven (37) informal settlements which house 70 percent of the population (World Bank, 2002).

Many reasons are attributed to the formation of informal settlements, some of which include unaffordable land and housing for low income groups; absence of timely urban planning, land management and policy for social integration of low income groups; population migration and rapid urban growth; irresponsible sub-division of land by private landowners; and lack of enforcement of rules due to limited resources and weak and ineffective development control systems (UN-Habitat, 2010, AESOP, 2012).

Informal settlements can be defined generally as human settlements which do not provide their inhabitants the opportunity for enjoying their rights to an adequate standard of living (UN-Habitat, 2007a). The study contextualizes the definition of an informal settlement as an underdeveloped and illegal settlement created in an urban or peri-urban location, formed on free land occupied by a majority of low income families, without having the permission from their rightful owners and/or independently from the central authorities (Turner, 1969).

2.3.1 Development of Informal Settlements in Zambia

The transition from minority-colonial rule to majority rule, when Zambia attained independence in 1964 witnessed an increase in the number of people migrating from the rural areas into the cities (Makasa, 2010). However, the housing numbers in the urban areas was inadequate to cater for the growing population with most municipal housing being reserved for civil servants. This led to an increase in squatter settlements which provided an alternative accommodation type to the migrants who settled on abandoned farmland (Hansen, 1982). The squatter settlements were usually strongholds of the major political party that became the main protector and advocate of the many thousands of people whose right to live in the City was still only partially recognized by the public authorities (Bamberger *et al.*, 1982). The invasion of these abandoned farmlands later transitioned to any land within the City, which had been vacant for a long period of time resulting in land conflicts (Chitonge and Mfunne, 2015).

Zambia's initial approach to dealing with illegal settlements was through demolitions. This approach however proved to be unsustainable with a growing number of Lusaka City's population residing in informal settlements. The government, with the help of donor aid then embarked on squatter upgrading exercises (Mulenga, 2003). Generally, the upgrading schemes carried out in the City of Lusaka demonstrated that economic activities in the informal sector emerged where a large concentration of well serviced houses was provided. In addition, the granting of legal status to these settlements enabled them to become centers of economic activity. A major challenge was that because plots were allocated through the local authority system, political patronage became a major allocation criterion. This resulted in conflicts especially for those that had weak financial capabilities to appease the political leaders at the time (World Bank, 2002).

Some of the informal settlements in Lusaka that were upgraded include Kalingalinga, Chawama, Chaisa, George and Kamanga (Hansen, 1982). However, the upgrading of these settlements did not achieve financial sustainability. There was very minimal community involvement in the initial planning of these upgrading exercises and maintenance of the upgraded infrastructure by the community residents. This was

despite the large finances that were involved in the projects (World Bank, 2002). The projects showed that the percentage of homes owned by females dropped after upgrading. These women could not afford to upgrade their houses and thus opted to move out of the settlement or to rent homes (World Bank, 2002).

The issues that impeded the successful implementation of the upgrading projects was that the service levels were not based on what residents wanted but were simply imposed on them. In addition, the technical regulations introduced to them were often unrealistically high and outside the community cultural settings. Further, the community organizations were expected to operate and maintain facilities despite them not being consulted during the planning and implementation process, and that cost recovery measures had no sanctions to deal with defaulters (World Bank, 2002).

These upgrading experiences in Zambia, led to community-based training and local development processes that were based on limited and endogenous financial resources. However, many of these settlement upgrading programmes faced severe delays for not paying sufficient attention to the resolution of issues and conflicts related to land management (Acioly, 2002, Bamber *et al.*, 1982).

The most serious cause of delays in settlement upgrading projects was the acquisition of land. It was assumed that with the enactment of the Housing (Statutory and Improvement Areas) Act of 1974, the government of Zambia would acquire land from residents under the compulsory acquisition of land, to be used for the upgrading projects and spill over areas (Bamberger *et al.*, 1982). A timeframe of one year was allocated for the acquisition of land but the process took up to three years to complete. However, due to the limited compensation that was offered to the people to be relocated, the land owners had no incentive to sell their properties. In many cases, these land owners hired lawyers to oppose the acquisition in the courts of law (Bamberger *et al.*, 1982). Despite the delays, these land acquisition problems were resolved, and the upgrading projects were able to take off.

And thus the documentation of upgrading projects, has not focused on conflict resolution mechanisms that were used to promote community compliance in the settlement upgrading processes at the time of the exercise. This research is therefore

essential in identifying sustainable conflict resolution parameters that need to be taken into account in a settlement upgrading process. This is in order to ensure resident compliance toward land use regulations and the general success of a settlement upgrading process.

2.3.1.1 Community Leadership Structures in Informal Settlements

The Ward Development Committee is the second smallest unit of governance at the local level charged with ensuring the responsibility of development. Each town in Zambia is divided into wards (LCC, 2009). The number of wards per town is dependent on the geography and population of the area. Each ward is represented by an area councilor, who sits on the full Council Meeting of the respective council. The councilor is responsible for the overall development of the ward and is the council representative at community level (Bamberger *et al.*, 1982). The WDCs are charged with the responsibility of overseeing development at the lowest level within communities. Their main role is to promote the development of each community and mobilize resident participation in partnership with the councilor and other cooperating partners (LCC and ECZ, 2008).

A WDC is further subdivided into zones. The number of zones falling under a ward is dependent on the size of the community. A zone leader represents the zone and chairs the Zone Development Committee (ZDC). All zone leaders form the WDC, which is administered by the area councilor (LCC and ECZ, 2008). In some instances a ward development committee may have two or three settlements overlapping in one ward. Both the WDC and ZDC oversee the development in their respective wards (LCC, 2009).

The Ward Development Committees play a crucial role in the upgrading of informal settlements. In the development of site and services schemes in the 1980s, “these committees would take part in overspill plot allocation and in the mobilizing of self-help labor for the construction of certain community facilities. They would also be responsible for shaping long range development programs promoting continuing improvement to dwellings, infrastructure, and community services” (Bamberger *et*

al., p 82). They mediate over problems concerning water, sanitation, tenure security and land issues. The main land issues they oversee relate to boundary conflicts, inheritance disputes and abandoned land encroached upon by others (Asperen, 2014).

2.3.2 Social Economic Characteristics of Informal Settlements

Although slum upgrading exhibits improvements on the physical environment of a City, Planning professionals have expressed concern that, by producing low-cost housing, settlement upgrading encourages the unemployed and unproductive persons to migrate to or remain in the City instead of rural areas where they are likely to be more productive (Bamberger *et al.*, 1982). This is because informal settlements generally are characterized by inadequate infrastructure, low income and education levels, poor access to basic services, unsuitable living environments, limited accessibility and transportation networks, uncontrolled and unhealthy population densities, insecurity or limited security of tenure and poor access to health and education facilities (Abbott, 2002; Suditua and Vâlceanub, 2013).

Research carried out by the United Nations Human Settlement Programme (UN-Habitat, 2007b) in different informal settlements of Tanzania, Kenya, Uganda and Liberia highlights the poor socio-economic conditions of these settlements. Statistics in these settlements indicated that many of the residents living in informal settlements earned very low income working with blue collar jobs or petty trading. For example in Kagugube and Kinawataka settlements in Uganda only 28 percent and 30.8 percent of the residents respectively worked and earned an income dealing in petty trade such as car washing, food vending, hawking, brewing local potent gins and selling second hand clothes. Other income generating ventures they engaged in included transporting residents from one place to another on motorcycle popularly known as bodaboda riding, fruit vending, fish packing, tailoring, water vending and brewing. Other residents of these communities worked as night watchmen (security guards) and casual laborers on construction sites (UN-Habitat 2007b).

In Susan's Bay informal settlement in Freetown, Sierra Leone income was mainly derived from business activities such as selling vegetables, hairdressing, and rentals from the renting of houses within the settlement representing 66 percent. Another

22.4 percent relied on unpredictable and unsteady income sources in casual employment such as daily laborers and helping friends and families run their businesses. From these income sources 48.4 percent of the respondents earned below 50,000 Leones (\$12) as a monthly income while 34 percent earned between 50,000 and 200,000 Leones translating into \$12 to \$20 (UN-Habitat, 2003).

In Kenya's Nyalenda informal settlement which originated as a rural settlement and was eventually caught up in urban expansion, petty trading, domestic work, artisanship and farming provide the main sources of income to the residents. The main type of sanitation in the area was the pit latrine. A few houses had water closets with septic tanks, which had increased ground water contamination (UN-Habitat, 2005). Many plots were of small sizes on black cotton soils, making it difficult to construct pit latrines. Residents in these areas resorted to alternative waste disposal methods including use of open spaces and polythene bags for defecation which were disposed of at night, a trend that was increasing in the settlement. This phenomenon led to some conflicts with neighbors that had this effluent thrown into their yards. Nyalenda's tenure system was one in which land was handed down to successive generations, as is typical in a rural setup. The residents engaged in cultural land-use practices such as farming and cattle grazing resulting in periodic land use conflicts with Municipal authorities as grazers invaded parks and other amenities in pursuit of pasture (UN-Habitat, 2005).

Obunga and Bandani settlements also of Kenya, were initially zoned as agriculture zones and subsequently subdivided. The vast majority of residents in these settlements earned relatively low incomes from occupations that included brewing of illicit alcohol (a major income earner) and fish-frying which was a source of both food and income. The sale of firewood for cooking and fish-frying was also widespread. Boda-boda cyclists and handcarts were means of transport and sources of employment. A few people sought employment outside the area as construction workers, craftsmen or artisans (locally known as Jua Kali), running kiosks, hawking, as well as formal employment in services and manufacturing.. The roads in these settlements were generally impassable due to poor drainage and inadequate spacing of houses and other buildings. With unclear beacons demarcating roads, people built

on road reserves resulting in land use conflicts within the settlement (UN-Habitat, 2005).

In addition, a study carried out by Magigi (2004), in Tanzania observed that 60 percent of the residents in Ubungo Darajani settlement were employed in the formal sector while 40 percent were employed in the informal sector. It further showed that 32 percent were engaged in business activities such as retail shops, garages, hotels and restaurants. Another study by Magigi and Mangani (2005), in Ibungilo informal settlement also of Tanzania revealed that 42 percent of the respondents were employed in the formal sector and 58 percent in the informal sector. This study also showed that 34 percent of the respondents were involved in income generating activities such as petty trading, animal and poultry keeping among others (Magigi and Mangani 2005).

The literature from the studies conducted in these informal settlements in Kenya, Tanzania and Sierra Leone shows that many of the residents in these settlements earn income through petty trading, running small scale business and engaged as workers in informal sector activities. It also shows that much of the infrastructure such as roads and solid waste management systems are in a poor condition to adequately ensure environmental protection to the residents.

These results indicate similar trends with regards to income generating activities of informal settlements in Zambia. A study by Fallavier *et al.*, (2005) on livelihoods in informal urban settlements in Lusaka City, revealed that many residents of these settlements are self-employed working in a variety of informal economic activities. These activities ranged from producing and selling building materials, to trading petty commodities, farming and renting out houses or rooms. The study also showed that housing-related activities provided jobs to unskilled workers such as the production of crushed stones, sand and bricks, while skilled artisans produced fittings such as door and window frames, and offered services in plumbing, electrical work or carpentry (UNZA, 2013; PPHPZ, 2013). Further, the results showed that most people working in the informal sector combined several activities, including the cultivation of undeveloped urban or peri-urban land to supplement their incomes and food intake (Fallavier *et al.*, 2005).

2.3.3 Informal Settlement Upgrading and Mechanisms for Land Use Conflict Resolution

Informal settlements generally are developed progressively over many years and often become recognized legally as part of the regular development of the City. Each government in an attempt to improve the living conditions of its citizens living in these areas have engaged in settlement regularization and upgrading programmes (Suditua and Vâlceanub, 2013). Informal settlement upgrading is basically a process of intervention in the physical, socio-economic and juridical structure of an informal settlement (Acioly, 2002). An upgrading process is almost always necessary as the development of these settlements is in conflict with the existing laws and regulations of planning. Some of the conflicts that emerge during an upgrading process include boundary and land encroachment conflicts, limited finance to implement the new housing standard/requirement; compensation, eviction and relocation conflicts; and conflicts to do with tenure (Wehrammn, 2006; Magigi and Mangani 2005; Majeke 2005). In the resolution of these land use conflicts, many settlements have engaged various approaches to settlement upgrading and developing mechanisms for land use conflict resolution as highlighted in Kihonda, Chang'ombe, Ubungo Darajani and Wallacedene informal settlements.

2.3.3.1 Kihonda Informal Settlement in Morogoro, Tanzania

Kihonda in Morogoro of Tanzania, is an informal settlement housing over 5000 residents in a suburban location. The regularization and upgrading of Kihonda was embarked on under the countrys' villagisation programme. Land demarcation was carried out by a a semi-skilled technician in which each household was allocated one acre (about 4000m²) for residential use. The village government, a community leadership structure was responsible for scrutinizing applications from persons who wanted to join the settlement as well as ensuring that land was allocated in a fair manner. They also ensured that land development was carried out in an orderly and organised manner. Most of the housing originated from informal subdivision, and sale of un-serviced land by customary or quasi-customary landowners. The extension of the administrative township boundary incorporated these settlements into the formal City (Kombe and Kreibich, 1997).

Security of tenure of original settlers or those that had inherited land was assured through social recognition, in which neighbours, relatives, friends and local leaders acknowledge an individuals' right to land in the settlement. Permanent fixtures such as trees or sisal plants were often used to demarcate plot boundaries. At times a narrow trench was dug around a plot to mark the boundary. Where a person bought the land on which he/she resided, the possession of a land transfer or selling agreement form, which bore the signatures of the seller, buyer and witnesses guaranteed an individual his or her rights to land. The local community leadership in the settlement was constituted by the ward office officials. The Ward office at Kihonda maintained a Land Transfer Registration Ledger with the names and home numbers of all the residents in the settlement. An individual wishing to purchase or transfer land consulted with the Ward Executive Officer (WEO) to confirm or authenticate the rights of the transferee over the land in question before the land was registered. Normally the WEO would countercheck with the respective subward leader also known as the Mtaa before the transfer was registered (Kombe and Kreibich, 2001).

In the resolution of land use disputes, community leaders namely the sub ward leaders (locally known as the Mtaa) and Ward leaders presided over the dispute resolution process. Each Mtaa and Ward had established a Dispute Resolution Committee which heard land dispute cases. Community members would bring various land disputes, which included boundary disputes, trespassing and multiple sale of land. The Mtaa played the role of mediator in the negotiation process of resolving these land disputes. Cases that were not resolved by these institutions were referred to the police and courts of law. In resolving referral cases, the Courts often studied the evidence tendered by the grass-roots institutions and called the witnesses who were involved during the signing of the selling or transfer agreement. However most defaulters' preferred to have their cases heard and settled at the community level where penalties were modest and proceedings took shorter time than advancing disputes to the courts of law (Kombe and Kreibich, 2001).

2.3.3.2 Chang'ombe Informal Settlement in Dodoma, Tanzania

Chang'ombe settlement, located in the Tanzanian capital Dodoma, accommodates approximately 38, 500 inhabitants living in 5, 234 houses (URT, 2002). The area was previously a smallholder agro-pastoralist village at the periphery of the town engaged in the cultivation of seasonal crops after which it was designated a green belt in 1976. Chang'ombe green belt area was planted with trees in an orderly pattern which was adopted by the indigenous landowners in the subdivision of their land. In order to ensure that no trees were affected during the construction of houses, adjoining home owners often assisted newcomers to site their houses so as to ensure compliance with the norms which were generally respected by their predecessors as road reserves. The pattern of access roads which emerged from this self-imposed planning norm followed the existing rows of trees and provided the initial spatial structure for the settlement and the housing lay-out. The community leaders joined the landowners in monitoring and assisting home builders to adhere to the linear pattern and avoid uprooting of the trees. In order to ensure an orderly development, the community leaders used sisal ropes and bush poles to measure, demarcate and site houses. Following the Tanzanian government's decision to declare Chang'ombe settlers lawful occupants of the green belt, the role of the local leaders in guiding the siting of houses and monitoring land development suddenly came to an end. The legalization of ownership thus marked the beginning of 'unguided' housing land development. The demise of the institutions and grass-root actors that had played active roles in lay-outing the houses in an orderly pattern is depicted by the sporadic nature of the housing clusters, which ensued the government intervention (Kombe and Kreibich, 2001).

An individual's rights on land, was also ensured by the adjoining landowners, by local leaders and relatives or friends as was the case in Kihonda settlement. The settlers in Chang'ombe also designed and applied land transfer agreement forms with attributes similar to the ones observed in Kihonda. Unlike Kihonda, Chang'ombe is, not divided into housing blocks and the plot area is often defined with reference to the adjoining land owners or to permanent land marks or dominant features in the area.

Many of the land use conflicts arose in Chang'ombe, resulted from a high demand for land and a rapid increase in land values. These disputes were mostly trespassing on private land, e.g. plot boundary disputes, and with encroachment on semi-public or public areas like roads and footpaths. The residents involved in the land conflict would first engage in dialogue among themselves. If this failed to resolve the conflict, the matter would be referred to the Ten-cell level, then to the Mtaa level, then eventually to the ward level as shown in Figure 1. Conflicts not resolved at these levels would be referred to the courts of law.

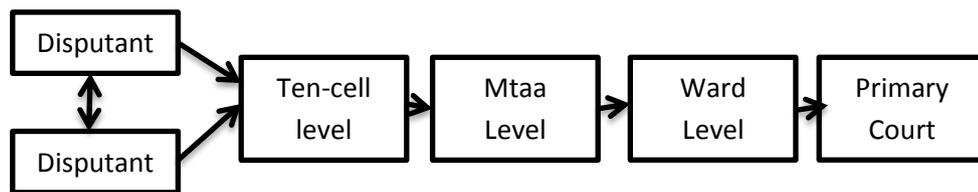


Figure 1: Land Conflict Resolution Path in Chang'ombe Settlement

(Source: Kombe and Kreibich, 2001)

Land use conflicts were resolved by grass-roots institutions at the Mtaa and Ward levels. When the Ward Disputes Resolution Committee failed to resolve a dispute, the cases are referred to the Primary Court (Kombe and Kreibich, 2001).

2.3.3.3 Ubungo Darajani Informal Settlement, Tanzania

Ubungo Darajani informal settlement community of Tanzania consists of 4,245 people residing on 26 hectares of land (URT, 2002). The settlement had a minimum plot size of 12-metre square while the maximum plot size amount to 2000 square metre (a garage within residential area). The settlement in 1997 embarked on land regularization process in order to improve infrastructure facilities and services, preventing haphazard housing development and encroachment on roads and improving their security of land tenure. The first priority in the regularization exercise was to improve security of tenure of the land owners. With the high rate of boundary disputes experienced in the settlement, the community demanded regularization agreement forms to be issued to them as a measure of security, which would confirm plot boundaries in order to prevent boundary disputes in future (Magigi and Mangani, 2005).

In order to ensure sustainability of the regularization project, a new committed leadership was ushered into power in 1998 after the former leadership failed to mobilize residents to implement development initiatives. The new leadership embarked on community mobilization to implement land management activities in collaboration with community organizations. The new leadership was able to succeed in this task because they carried out their activities in a transparent manner, including openly displaying information about ongoing land management activities. The transparency in information dissemination also enhanced trust and encouraged residents' participation and contribution to ensuring that the land regularization project succeeded (Magigi and Mangani, 2006).

The Ubungo Darajani community formed a community task force to mitigate the land use conflicts that would arise during the settlements regularization process. The task force comprised community leaders, persons from within the community and experts from University College Lands Architecture Studies (UCLAS) who gave technical advice during the settlement regularization process. In the resolution of conflicts the affected parties would be called upon to present their position to the committee and through negotiations and involvement of friends and relatives of the disputants/ parties in conflict, the conflicts would either be resolved or referred to the courts (Magigi and Mangani, 2005; Magigi, 2004).

2.3.3.4 Wallacedene Informal Settlement, South Africa

Wallacedene is a settlement located 40 kilometres from the centre of Cape Town and sits on 54 hectares of land with a population of approximately 21000 people (Statistic South Africa, 2001). During the settlements regularization and upgrading process, the community leaders had created adjudication records which provided land owners with some form of security that could be used to obtain a formally registered land parcel under various government land and housing subsidy schemes. However, these records did not conform to occupation on the ground. De facto, informal transfers, partial transfers, abandonment, and sub-leases of land parcels were common (Barry, 1999).

The conflicts experienced within the settlement were mainly boundary disputes and illegal invasion of land. Parcel owners in the formal section of the settlement (in which backyard shacks are common) would usually permit shacks on neighboring parcels to encroach over their boundaries but the conflict arose when the owner would decide to build a permanent structure and then had to evict the squatters. These conflicts were resolved through the intervention of local representatives of Wallacedene settlement and the ruling party councilors through negotiations with the affected persons. Where these negotiations could not reach a compromise, then the matter was referred to the courts of law (Muzondo *et al.*, 2004).

With the expansion of the settlement, another land related conflict arose in 1998, where some settlers from Wallacedene and other nearby settlements (the ‘Grootboom group’) invaded private land on the New Rust farm in South Africa (Barry, 1999). The owners of New Rust served notice on the Grootboom group to vacate the land but the illegal settlers failed to vacate and the local Sheriff evicted the group by bulldozing the shacks. The Grootboom group appealed against the Oostenberg Municipality in the Western Cape High Court to provide adequate and sufficient basic temporary shelter and/or housing for their children pending obtaining permanent housing. The group also applied for adequate and sufficient nutrition, shelter, health care services and social services to all applicants’ children. The conflict was resolved in their favor when the High Court judgment of 17 December 2000 ordered the Municipality to provide tents, portable latrines and a regular supply of water as a bare minimum in a location that was convenient or close to jobs (GRSA, 2001). This situation is peculiar to South Africa because housing is enshrined in the country’s constitution as a basic human right as opposed to Zambia which outlines them in the Directive Principle of State Policy section and is not justiciable.

2.3.3.5 Chawama Informal Settlement, Lusaka, Zambia

Chawama is an informal settlement that originated in 1952, as the home of a retired farm foreman who was given permission to settle on unused land on the edge of a large commercial farm. As more people began to settle on the farm, the population had increased to 5,000 by 1965 and the settlement was controlled by the politicians from the main opposition party, the African National Congress (ANC) (Rakodi, 1988). After independence in 1964, the government of Zambia embarked on upgrading Chawama in order to improve the living standards of the residents. The upgrading project aimed to provide security of tenure and the installation of physical and social infrastructure. It also sought to facilitate the improvement and construction of houses. Land to serve as an overspill area, for houses that would be affected by the provision of services was acquired though the process took longer than expected (Bamberger *et al*, 1982).

The construction of basic infrastructure such as roads, storm water drainage and water supply were largely completed without major disruption of the existing settlement. However, a number of conflicts arose due to deficiencies in design, technology choice and administrative arrangements especially of maintenance and payment of service charges within the community (Rakodi, 1988). Despite these challenges being adequately resolved in the upgrading of Chawama settlement, the methods and techniques used in the resolution of these conflicts have not been documented.

2.3.3.6 Chazanga Informal Settlement, Lusaka, Zambia

Chazanga informal settlement developed on the fringes of the City of Lusaka, under traditional customary tenure in Chief Mungules Chiefdom in Chibombo district (LCC, 2009). Due to the expansion of Lusaka City, the settlement provided accommodation to many residents who were not able find housing in the formal housing system. This resulted in the area transforming from a rural into an urban area. The residents of the settlement acquired land through informal subdivision and sale, of customary land (Asperen, 2014).

The local community institutions prevalent in the resolution of conflicts in Chazanga include the area councillor, the headman, the WDC (chairperson or zone leader) or the police in the event of violence. Land conflicts were usually referred to the headman while other conflicts such as water conflicts were referred to the zone leader. When residents failed to resolve a conflict by themselves, they would first refer the matter to the zone leader and if consensus was not reached, the matter would be referred to the WDC chairman and finally the area councilor. However, if no agreement was reached, residents took the matter to the courts of law (Asperen, 2014).

One notable development in the resolution of land conflicts in Chazanga was that people coming to the WDC would be charged K10 (\$2) for conflict resolution. They stated that the money thus raised was used for buying stationery for the operations of the WDC (Asperen, 2014). Another issue that was peculiar to Chazanga was the presence of both statutory and customary forms of tenure, each having a local leadership hierarchy.

However, the outcomes of the land conflict resolution in settlement upgrading have not been documented in order to assess the effectiveness of the conflict resolution institutions with regards to the mechanisms used, and in ensuring equity and agreement in the outcome process. This study therefore, seeks to identify the mechanisms used in land conflict resolution in a settlement earmarked for upgrading.

2.4 Implications for Settlement Upgrading

The review of the literature on land conflicts in informal settlements has identified that strategies developed for the sustainable upgrading of any informal settlement need to be tailored to the social economic conditions of slum dwellers. Data on income levels, income generating activities and educational achievement of residents in informal settlements suggests that slum upgrading initiatives should plan to work with people with relatively lower levels of education who are not likely to access formal employment. It should plan for residents who earn low wages or salaries and mostly engage in self-employment activities for their livelihood. Micro-finance

options should focus on enhancing these self-employment activities in order to improve the living standards of the residents and their living environments (UN-Habitat, 2006).

The literature also shows that the major actors in land conflicts resolution have been the local community leaders. It has shown that these traditional or informal conflict mediation systems are present but may lack capacity and sometimes are faced with significant operational challenges in that they lack information and training about conflict resolution skills and methods, land law and procedure systems. In recognition of this need, settlement upgrading needs to involve several initiatives to help build the capacity of these institutions to enable them better mediate conflicts that are brought before them (Espinosa, 2013).

2.5 Theoretical Framework

The resolution of conflicts as a discipline requires the intervention of unbiased skilled third-parties working with the affected parties to foster direction in dealing with the conflict (Miall, 2004). The preoccupation of conflict resolution is in identifying the root causes of the conflict and seeking alternative solutions to resolve the conflict other than violence. The aim of the conflict resolution process is to create a situation that is acceptable to the parties in dispute and effective in resolving the conflict (Azar and Burton 1986). Land use disputes in many instances involve two or more individuals that have divergent interests on how to resolve their dispute. The manner in which these disputes are resolved determines whether or not the conflict resolution process will result in a peaceful end state or escalate into violence (Tjosvold *et al.*, 2014). Morton Deutsch's constructive conflict resolution theory has been used in this study as the theoretical framework that would enhance successful land use conflict resolution in settlement up-grading processes.

2.5.1 Constructive Conflict Resolution Theory

Deutsch (2002) articulates that a number of factors like the nature of the dispute and the goals each person aims at achieving are cardinal in determining the kind of orientation a party would bring to the negotiating table in an attempt to solve the

conflict. He conceptualizes two basic orientations to dispute resolution, namely the cooperative and competitive approaches (Tjosvold *et al.*, 2014).

The competitive or “fighting” approach to conflict resolution exploits individual assertiveness (for instance concern for self) and reduces empathy for others (Morrill, 1995). Competition is induced by the use of coercion, threats, or deception and attempts to enhance the power differences between oneself in conflict resolution (Deutsch, 2006). Persons using this approach enjoy seeking domination over others and tend to force them to accept their personal views by employing competitive power tactics such as arguments, insults, accusations and violence that foster feelings of intimidation in others (Morrill, 1995). This approach leads to win-lose outcomes that advantage one group over another. The use of competitive conflict resolution is inclined towards intensifying animosity and distrust between parties and is generally considered destructive (Dixit, 2014; Forsyth, 2010).

Cooperative conflict resolution on the other hand is concerned with generating an outcome that is beneficial to both parties involved in the conflict. Individuals using this type of conflict resolution style tend to be both assertive and empathetic towards the other party (Bayazit and Mannix, 2003). In this approach, conflict is seen as a creative opportunity, in which collaborators willingly invest time and resources into finding a “win-win” solution (Morrill, 1995). Cooperation is induced by a perceived similarity in beliefs and attitudes, a readiness to be helpful, openness in communication, trusting and friendly attitudes as well as an orientation toward enhancing mutual power rather than power differences. The cooperative disposition evokes an atmosphere of trust and eventually leads to mutually beneficial options for both parties involved (Deutsch, 2006).

Knowledge of the effects of cooperative and competitive processes in land use conflict resolution affect whether a conflict will take a constructive or destructive course. However a cooperative conflict resolution style is recommended above all others (Tjosvold *et al.*, 2014; Jarboe and Witteman, 1996). This research, whose aim is to identify land use conflict resolution mechanisms, therefore suggests that the use of the cooperative type of conflict resolution approach in the resolution of land use

conflicts in Kalikiliki, will lead to sustainable conflict resolution. This is because the cooperative approach to conflict resolution is likened to a constructive method of resolving conflicts. On the other hand, the use of the competitive form of conflict resolution is likened to a destructive method of resolving conflicts (Tjosvold *et al.*, 2014). The cooperative approach will ensure that both parties in conflict develop outcomes that will be mutually beneficial for everyone involved. This will result in a sustainable land use conflict resolution process that will enhance the adherence to land use regulations and guidelines in settlement upgrading.

CHAPTER 3: STUDY AREA

This chapter provides a description of Kalikiliki settlement as the study area of this research.

3.1 Location

Kalikiliki settlement (shown in Figure 2) is located approximately 11.5km from the Central Business District (CBD) of Lusaka City (LCC, 2009). The settlement is bordered by Mtendere settlement originally a site-and-service housing scheme on the Western and Northern part, Kabulonga a formal settlement on the South and Ibex Hill originally a farming area on the Eastern part (UNZA, 2013).

3.2 History of the Settlement

Anecdotal information shows that Kalikiliki settlement has evolved since the 1960s through workers who were employed to dig laterite, which was used for road construction and brick-making. The excavation site left by the digging later became the Kalikiliki dam. Kalikiliki means a “rush” or “hustle and bustle” in the local language, and the term evolved from the Laterite company owner’s insistence that the workers do their work quickly. It became the white owner’s nickname and later the name of the stream, settlement and dam - although the dam is also sometimes referred to as the Kabulonga dam (Nchito, 2007; Community Member, 2013).

3.3 Characteristics of the Settlement

The total area of Kalikiliki settlement is approximately 740, 000 square meters and is home to about 20,286 people residing in 3,378 households with an average household size of six individuals (PPHPZ, 2013). The settlement is considered to be an informal settlement with approximately 70 to 80 structures per hectare translating into 420 to 480 persons per hectare making it a high density settlement (UNZA, 2013). The general soils of the area are clay soils, with a high water table and poor drainage making the settlement prone to flooding (Nchito, 2007).

Kalikiliki settlement developed in a haphazard manner resulting in limited accessibility and thus the provision of services to the area is difficult in its current

state. The main motorable roads within the settlement are mainly one way streets which are in a deplorable condition with no proper drainage system. Figure 2 depicts the location and development pattern of Kalikiliki settlement.

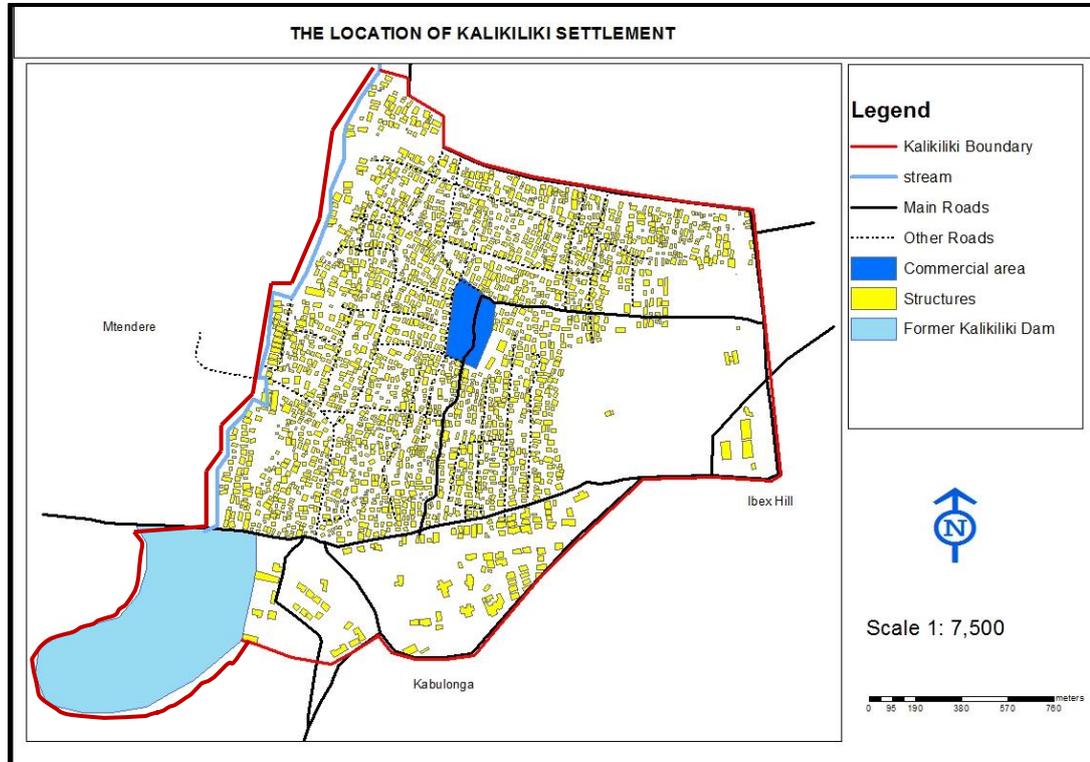


Figure 2: Location Map of Kalikiliki

(Source: UNZA, 2013)

Although the settlement was recognized in 1999, which is the first step in a settlement upgrading process, the settlement still bears the mark of informality, lacking basic services such as piped water, sewerage and a solid waste management system. The recognition of Kalikiliki, grants the residents legal status, which is the first step in settlement upgrading.

Thus, Kalikiliki settlement was selected as the study area because the settlement has been legalized and earmarked for upgrading. In addition, baseline information obtained during the Kalikiliki community participation process undertaken during the development of the Kalikiliki Spatial Development Framework by the University of Zambia in 2013 served basis of obtaining baseline data in developing the study.

CHAPTER 4: METHODOLOGY

This chapter highlights the methodology used in this research. The first part outlines the approach used in the study design of the research while the second section highlights the methods of data collection used. Part three discusses how the information was analyzed.

4.1 Study Design

The case study approach was used in this study to enable an examination of the phenomenon of land use conflicts resolution in Kalikiliki settlement (Bryman, 2008). Case studies deal with the intricacy and precise nature of the case in question which made it an appropriate methodology for the research (Stake, 1995). This study approach was used to establish a contextual analysis of the mechanisms of land conflict resolution in Kalikiliki settlement so as to understand the extent to which these mechanisms contribute to compliance towards land use regulations.

Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing objectivity or generality of findings (Kratochwill, 1978). However, Stake (2008) argues that one method to uncover the general is to begin by looking at the particular, that is, the case. The purpose for the use of the case study methodology in this research was intended to establish concepts and prepositions that can be tested in other informal settlements in Lusaka City that are undergoing settlement upgrading. Thus, the value of using the case research method in this research was not in generalizing the findings to all informal settlements but in generating principles that can be used in settlement upgrading for other informal settlements.

The utilization of more than one method of data collection enabled validation of data provided by the community residents through checks by various institutions such as the council, ward development committee and police involved in land use conflict resolution thus making the information gathered during the research reliable.

4.2 Sampling Methods

Snowball sampling was used to select respondents from Kalikiliki settlement that were interviewed. A key informant from the Kalikiliki Lusaka City Council office was used to identify the first respondent after which, the respondents provided the researcher with other respondents that were included in the research. There was no record of residents that had been involved in land use conflicts, at the Lusaka City Council Mtendere Office, which has jurisdiction over Kalikiliki with regards to land use conflicts. Thus it was not possible to draw a random sample since there was no knowledge of the population from which it could be drawn (Becker, 1963). A total of 60 respondents were interviewed after reaching theoretical saturation which is simply defined as data satisfaction, a point where no new information is obtained from further data (Glaser and Strauss, 1967). Saturation point determines the sample size in qualitative research as it indicates that adequate data has been collected for a detailed analysis. However, there are no fixed sizes or standard tests that can be used to determine the required data for reaching saturation (Kendall, 2008). Key informants were purposively selected based on position and knowledge of the occurrence of land use conflicts.

4.3 Data Collection

Primary data was collected from two groups who included the community members and key informants. An interview schedule (See appendices A and B) was used to collect data from the community members and key informants who included representatives from the Ward Development Committee, Lusaka City Council and the Kalikiliki Police. Direct observation was also used in the collection of primary data as show in appendix C.

The interview schedule administered to the respondents had four major themes with the first part providing information on socio-economic characteristics of the settlement. Part two provided an assessment of the nature and causes of land use conflicts in Kalikiliki settlement. The third component focused on identifying the mechanisms used in land use conflict resolution and the last part outlines the parameters that had been useful in the successful resolution of land use conflicts in Kalikiliki settlement.

Secondary data used in this research consisted of published peer reviewed articles focusing on land use and conflict resolution by Wehrmann, (2006), Chitonge and Mfuno, (2015), the UN-Habitat (2010) and Campbell *et al.*, (2000) among others. Other articles reviewed on informal settlement regularization were by the Association of European Schools of Planning (AESOP), (2012), Kombe and Kreibich (2001), Magigi and Mangani (2006), Mulenga (2003) among others. Information obtained during the Kalikiliki community participation process undertaken during the development of the Kalikiliki Spatial Development Framework by the University of Zambia was also used for community statistics such as number of organizations operating in the community and their activities. This was necessary in order to supplement the primary data of the research.

4.4 Data Analysis

Information obtained with regards to the three objectives that the research sought to achieve was analyzed using descriptive statistics and themes. In analyzing the types and causes of land use conflicts as well as information on mechanisms of land use conflict resolution, descriptive statistics in the form of percentages and frequencies were used. Qualitative analysis using themes was used to analyze data obtained from key informant interviews on the mechanisms used in resolving land use conflicts and parameters identified that could be used to promote successful land use conflict resolution in a settlement earmarked for upgrading. The first step in the process of thematic analysis involved transcribing the data. This was followed by the development of initial codes and the clustering of data into categories and documenting similar patterns. These clusters were further reduced into three broad categories with respect to the three objectives for a more efficient analysis.

CHAPTER 5: RESULTS AND DISCUSSION

This chapter presents the findings of the research in relation to the nature and causes of land use conflicts, mechanisms of resolving land use conflicts and the parameters that can be used to promote successful land use conflict resolution in a settlement earmarked for upgrading. The chapter is divided into four sections. The first part gives insight into socio-economic characteristics of the respondents. The second section outlines the nature and causes of conflicts in Kalikiliki with the mechanisms for resolving these conflicts described in part three. The last section highlights the parameters identified that can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process.

5.1 Sample Profile

A total of 60 respondents were interviewed in this study, all of whom had experienced land use conflicts. The results show that 60 percent of the respondents consisted of males and 40 percent were female. The findings showed that 10 percent were between the ages of 21 to 30 years, 32 percent were between the ages of 31 to 40 years, 25 percent were between the ages of 41 to 50 years and 33 percent were aged 50 years and above. These results further show that 57 percent of the residents interviewed that had experienced land use conflicts were between the ages 31 to 50 years of age.

The employment status of the respondents in Kalikiliki established that only 15 percent of the respondents were in fulltime employment while 30 percent were self-employed. Another 33 percent of the respondents were engaged in piece work as a means of survival and 22 percent were unemployed. These findings reveal that the main type of employment engaged in by the respondent's was piece work such as washing, cleaning, lifting cargo and the self-employed type of work that mainly involved selling in shops. The most common form of self-employment in Kalikiliki was selling in shops either at the market, on their residences and renting out rooms.

This trend is similar to Kibera settlement in Kenya, where 50 percent of the residents are engaged in employment that is mainly of an unskilled nature (APHRC, 2014). Other studies in informal settlements in Tanzania and Sierra Leone by Magigi and

Manjani (2006) and the UN-Habitat (2006) also show that the main form of trading in these respective informal settlements is petty trading and informal sector small scale businesses.

With regards to income, 41 percent of the Kalikiliki residents earned less than K1000 (\$100) per month and another 41 percent earned between K1001 and K2500 (\$101 – \$250), while 14 percent earned between K2501 to K5000 (\$251 – \$500). Only 4 percent of the respondents earned an income that was K5000 (\$500) and above. These income levels were higher than those of the residents of Susan's Bay informal settlement in Seirra Leone where 48.4 percent earned below 50,000 Leones (\$12) as a monthly income while 34 percent earned between 50,000 and 200,000 Leones (\$12-\$50) (UN-Habitat, 2006). However, despite recording higher incomes than those of their counterparts in Susan's Bay settlement, these earnings were too meager to make any meaningful contribution to the welfare of the Kalikiliki families. The implication was that, 82 percent of the respondents were not able to meet the average food basket for a family of six which was estimated to cost K4,371.76 broken down by the cost of food items at K1,506.77 and the cost of essential non-food items at about K2,864.99 for Lusaka residents (JCTR, 2015). Therefore, only 4 percent of the respondents were able to afford the food basket requirements. Low levels of income are a central characteristic of informal settlements or slum areas. Poverty is seen as both an integral characteristic and consequence of slum conditions. Informal settlements or slums are designated areas where it is easiest to see poor people in the highest concentrations and in poor living conditions (UN-Habitat, 2003).

In terms of formal education, only 7.5 percent of the residents had attained tertiary education, with 38 percent reaching secondary schooling level. Residents that had attained primary education consisted of 40 percent while 15 percent did not have any form of school education. Currently Kalikiliki settlement does not have a public school and so school going children have to walk to the neighboring Mtendere compound to access education which is only up to primary level (LCC, 2014). The failure of the residents to proceed to secondary and tertiary education was because many of these residents dropped out of school opting to find piece work type of employment in order to make a living. Some of these residents would then construct several rooms on their properties in order to raise income through rents. In some

instances the construction of these properties would spill over onto neighboring land resulting in land conflicts.

5.1.1 Tenure and Land Rights

The majority of the respondents representing 60 percent stated that they had lived in Kalikiliki for more than 15 years while 15 percent stated 11 to 15 years. About 15 percent lived in the settlement from between 6 to 10 years, 5 percent from between 1 to 5 years and another 5 percent lived in the settlement for less than a year.

With regards to security of tenure, 93 percent of the respondents owned the properties they lived in. The results also show that 91 percent of the respondents had an occupancy license for their property while 9 percent did not have an occupancy license for their property. The absence of an occupancy license was attributed to either double land allocations where the seller sold the land to two people or that the seller did not inform the new buyer of the wrangles on the property or that the seller was still processing the documentation. The occupancy license which is a 30 year lease provided the residents with a limited form of security of tenure. The rights provided for in the occupancy license did not include the surrounding yard of a housing development for instance the resident only had rights to the space that the house they built occupied and not the surrounding.

An example of the implications of this limited form of tenure (property without land), was seen when the residents of Ubumwe Cell informal settlements, in Kigali City were faced with eviction without compensation to pave way for the construction of urban renewal development projects. The majority of residents (82 percent) held sale agreements and certificate of property as legal documents of their plots (Bizimana, *et al.*, 2012).

Security of tenure is an aspect that many residents of informal settlements or slum seek to attain despite their illegal status. Land tenure security has to do with the degree of confidence held by residents that they will not be arbitrarily deprived of the land rights enjoyed and/or of the economic benefits deriving from the land (Deininger, 2003; Bizimana *et al.*, 2012). An individual can be said to have security

of land tenure “when individuals perceive that they have the right to a piece of land on a continuous basis, free from imposition or interference by outside sources, as well as the ability to reap the benefits of labour and capital invested in such land, either in use or upon transfer to another holder” (Bizimana *et al.*, 2012: pg. 4).

Land tenure in informal settlements does not provide enough security for its residents (Paudyal, 2006). This was evident in Kalikiliki when residents did not agree with the outcome of the conflict resolution process used to resolve the land conflicts they encountered. The Council officers informed them that they do not have rights to the land surrounding their homes as it was owned by the Council. Thus some residents resorted to constructing buildings that covered the entire yard leaving very little space outside the development which resulted in boundary conflicts and had a negative impact on the environment. A study conducted by Nabanda *et al.*, (2001) on the issuance of occupancy licenses concluded that security of tenure was optimized through the possession of occupancy licenses. The occupancy licenses provided security against any possible conflict over ownership, both disputes arising from local authorities and/or community members and challenges by relatives. Therefore, these occupancy licenses need to provide residents with rights to both the land and actual building. Increasing the rights provided for in the occupancy licenses is a cardinal component in the resolution of land use conflicts in the upgrading and regularization of Kalikiliki settlement.

5.2 Types and Causes of Land Use Conflicts

The study sought to identify the types and causes of land use conflicts experienced in Kalikiliki settlement. The results show that the main type of land use conflict experienced in the settlement was land encroachment representing 60 percent as shown in Figure 3.

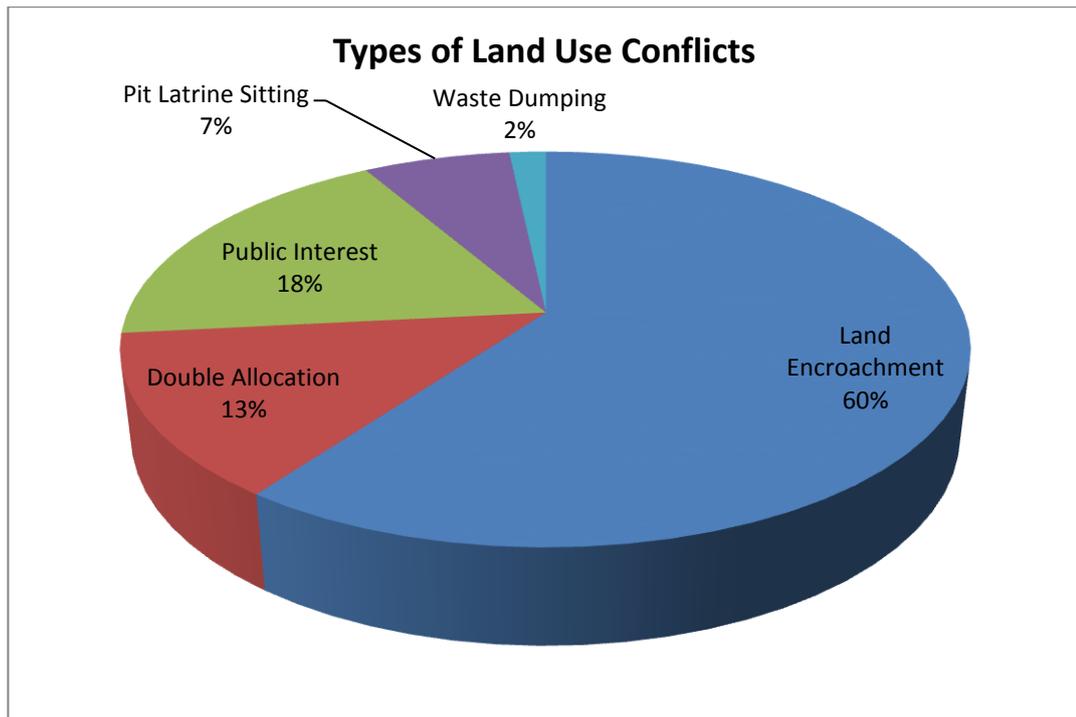


Figure 3: Types of Land Use Conflicts in Kalikiliki

(Source: Field Data, 2015)

These conflicts were caused by a number of factors ranging from corruption within the community leadership structure, lack of a land register at the Council office to document all land parcels and their boundaries and limited accessibility networks such as roads within the settlement. Other causes reported involved the lack of conflict documentation increasing the possibility of conflicts resolved in the past to reoccur, absence of a solid waste management system, limited land rights provided in the occupancy license which only included the housing unit and not the land surrounding the building. And finally undefined plot boundaries since the residents depended on temporary land marks such as shrubs or trees to identify the extent of their plot boundaries.

5.2.1. Land Encroachment Conflicts

Land encroachments constituted 60 percent of the land conflicts experienced in Kalikiliki. A land encroachment is defined as an unlawful entering upon the land or property of another person (Wehrmann, 2008). The most common cases of land encroachments experienced in Kalikiliki settlement involved a building extending beyond the legal boundaries of a plot and on to neighboring private or public land. These encroachment cases came about when a property owner was not aware or had

a mistaken perception of his property boundary line or intentionally choose to violate his neighbor's boundary line.

It must be noted that since Kalikiliki is an informal settlement, the plot boundaries were defined by the residents using trees or shrubs. These residents claimed the right to the land surrounding the building, despite the occupancy licenses they possess giving them only rights to the buildings constructed. Land use conflicts that ensued had to do with disagreement on the boundary line of the plot. When a boundary line became blurred due to either removal of the original mark such as the cutting down of a tree, the sale of land to another individual or its inheritance, residents tended to disagree on the boundary line thus causing land use conflicts. This was because the identification mark was passed on by word of mouth from the seller to the buyer. Figure 4 shows an example of a land encroachment which came about because an individual decided to build a house covering their entire plot and even entering onto the neighbor's property.



Figure 4: Building extending into Neighboring Plot

(Source: Field Data, 2015)



Figure 5: Building Construction starting from the Boundary line

(Source: Field Data, 2015)

Figure 5 also shows an example of a land encroachment case in which, in addition to constructing up to the boundary line, another problem of rainwater running through the neighbor's property from the roof resulted in a land conflict with the neighbor.

These land encroachment problems in the settlement were also created due to the limited land rights provided for in the occupancy license. The rights provided for in the occupancy license did not include the surrounding yard of a housing development for example, the resident only had rights to the space that the house they built would occupy and not the surrounding. Thus some residents would construct housing units up to the boundary line of the property leaving no space around the house as shown in Figures three and four. After a period of time, these residents would begin encroaching into the neighboring property's surrounding space for day to day tasks such as sweeping, cooking among others.

The plot coverage which is useful in determining spatial coverage of buildings as well as outdoor spatial qualities in a settlement was between 50 and 90 percent in Kalikiliki which is beyond the building regulations of 40 percent as provided for in

the Public Health Act Cap 295 of the Laws of Zambia and the Housing and Planning Standards (UNZA, 2013). Since Kalikiliki settlement was recognized, as a legal settlement, the two pieces of legislation apply in the settlement. The large plot coverage in Kalikiliki reduced outdoor space which was necessary for cross-ventilation, natural lighting, recreational areas for households within the plot. It also increased the likelihood of land encroachment conflicts occurring with neighbors.

Another major cause of the land encroachment cases experienced in Kalikiliki was the absence of a land register to identify extent of plot boundaries. The register available at the council was incomplete and only recorded house numbers of homes within the settlement. When such conflicts were brought before the Council officers, the problem would be compounded because, when settling the dispute, the Lusaka City Council would simply divide the remaining land equally between the residents. This was common especially in cases where there was no agreement between the parties in conflict.

The tendency towards high plot coverage in informal settlements was also observed in Msasani informal settlement in Tanzania which had relatively high plot coverage averaging 48 percent with some plots reaching 90 percent coverage. This created land conflicts to do with encroachments and trespassing (Lupala, 2002). The high prevalence of land encroachment cases or boundary disputes in informal settlements was also noted by Yamano and Deininger (2005) who established that about half of the land conflicts experienced by 899 informal settlement households in Kenya were over boundaries that occurred mainly with neighbors or relatives who lived close by. In addition, Chang'ombe informal settlement in Tanzania experienced a high number of disputes associated with trespassing on private land, for example plot boundary disputes, and with encroachment on semi-public or public areas like roads and footpaths (Kombe and Kreibich, 2001).

Land encroachment cases in Lusaka have not only been limited to informal settlements. Chitonge and Mfune, (2015) established that disputes over boundaries were becoming a common form of conflict even in the formal settlements of urban areas especially in Lusaka City. These conflicts involved the state and other institutions or right holders over a piece of land. Specifically, traditional leaders who held land on the fringes of the City claimed that Lusaka City was expanding and

encroaching on the land bordering the traditional authorities. These conflicts were caused by the surrounding traditional leaders who were refusing to release land for urban development and most commonly the lack of capacity to plan and implement the development and management of land in Lusaka (Simatele and Simatele, 2009).

With the high rate of boundary disputes experienced in Kalikiliki which stood at 60 percent, the upgrading of Kalikiliki needs to emulate strategies such as the one used in the regularization of Ubungo Darajani settlement in Tanzania in which agreement forms were issued to residents as a measure of security, which can be used to confirm plot boundaries in order to prevent boundary disputes in future.

5.2.2 Land use Conflicts of Public Interest

Land use conflicts that involved disputes of public interest constituted 18 percent of the land conflicts experienced in Kalikiliki. The public interest refers to the "common well-being" or "general welfare" of the community (Lloyd, 2006). Therefore, land use conflicts of public interest are conflicts which involved a resident in disagreement with a number of other residents in the community. These were conflicts which arose when an individual would close off his/her land that was used by a large number of residents in the settlement as a footpath or road. Other types of conflicts of public interest included instances where an individual had encroached onto a road or footpath used by the community and restricted access; or an individual built a structure on a road or footpath. Another form of conflict of public interest included the siting a water line through an individual's property or on an individual's property.

The results of the study show that 72.5 percent of the respondents obtained water from the communal kiosks within the settlement that were managed by the Kalikiliki Water Trust Company and another 25 percent had constructed individual stand pipes within their yards as shown in Figure 7. The construction of these water facilities tended to create land use conflicts within the plots that they were constructed on or on plots that they passed through. Figure 6 gives an illustration of land use conflicts of public interest involving the curving (expansion) of a road onto an individual's plot and in Figure 7 the siting of a water kiosk on an individual's land.



Figure 6: Road curving into an Individual's Land

(Source: Field Data, 2015)



Figure 7: Water Kiosk on Land claimed by an Individual

(Source: Field Data, 2015)

Another form of conflicts of public interest in Figure 8 involved the construction of a housing unit next to an electricity pole and the extension of a house on to the road in Figure 9.



Figure 8: Individual Building next to an Electricity Pole

(Source: Field Data, 2015)



Figure 9: House built on a Road

(Source: Field Data, 2015)

The compact nature of the settlements development did not make provision for the installation of services such as water and electricity lines and thus the construction of these facilities was done on people's plots. In addition, the limited nature of their

land rights provided for in the occupancy license restricted residents from pursuing compensation claims for the land that was used in the construction of these facilities on their properties thus leading to the development of conflicts of public interest.

The land use conflicts of public interest in Kalikiliki were caused by limited accessibility within the settlement. The haphazard distribution of housing in the settlement made accessibility within the settlement very difficult. The settlement was accessible by two main motorable roads and the few roads within the settlement were mainly one-way streets. Mobility within the settlement was cumbersome as the most houses were closely packed together. As a result, movement within the settlement was by footpaths that cut through households. The lack of a land register at the Council office to document all land parcels and their boundaries was another cause attributed to the land use conflicts of public interest.

These results on land use conflicts of public interest are similar to Chang'ombe informal settlement in Tanzania which also recorded a high incidence of encroachment by residents on semi-public or public areas like roads and footpaths. These types of land conflicts were the second most experienced land use conflicts in the settlement after boundary dispute or encroachments that they termed as trespassing on private land (Kombe and Kreibich, 2001).

5.2.3 Double Allocation Land Use Conflicts

Land use conflicts resulting from double allocations or the multiple sale of land accounted for 13 percent of the land conflicts experienced in Kalikiliki. This type of conflict mainly involved the sale of one piece of land to more than one individual. This phenomenon was very rampant in the settlement because of corruption and political patronage. Some of the Ward Development Committee (WDC) officials that held office during the period of 1990 to 2010 were cited as being key individuals that perpetrated this situation (Community member, 2013).

Another form of double allocation conflicts was the allocation of some plots with two different occupancy licenses. Thus individuals would be sold one property with two different occupancy licenses. Corruption within the community leadership

structures (such as the WDC) and the absence of an up-to-date land register at the council created these form of land conflicts.

The prevalence of double allocation land use conflicts in other informal settlements of Lusaka was generally widespread. An investigation into the types and causes of land conflicts in Lusaka by Chitonge and Mfune (2015) revealed that land conflicts involving overlapping claims (double allocation land use conflicts) were prevalent especially in informal settlements. The research further showed that incidences of concurrent claims were increasingly being reported even on land bought through a formal land market (LCC and ECZ, 2008).

Double land allocations were also noted in Ghana, where multiple sale of land by individuals among family members and institutions had increased and was becoming a security threat (Michal, 2016). Many of these conflicts were taken to the community leadership structures for resolution. However, there is an increase in the number of people who do not agree with outcomes of these conflict resolution processes. This has resulted in a lot of land cases pending before the courts of law with 4,000 suits pending to determine the rightful landowners (Michal, 2016). In most cases, injunctions are placed on the development of such lands until the rightful owner is ascertained.

5.2.4 Improper Siting of Pit Latrines

The main form of sewerage disposal facilities in Kalikiliki settlement comprised of pit latrines which were the main form of sewerage disposal for 95 percent of the respondents (UN-Habitat, 2005). In many instances, pit latrines were constructed where space was available within the plot which sometimes created a nuisance for the neighboring property such as when it was constructed very near the neighbors kitchen. The manner in which these pit latrines were constructed tended to create a potential health hazards to the neighboring property in the event that the facility collapsed became full. This type of land use conflicts represented 7 percent of the land use conflicts experienced in Kalikiliki settlement.

This type of land conflict was caused by high plot coverage resulting from the limited rights provided for in the occupancy license. Residents that built without leaving any space around the yard would begin to encroach on neighboring land to carry out day-to-day activities such as cooking and cleaning.

The use of pit latrines is a common phenomenon affecting informal settlements. In Kenya's Nyalenda settlement, many plots were of small sizes, making it difficult to construct pit latrines (UN-Habitat, 2005). Thus these residents resorted to alternative waste disposal methods including the use of open spaces and polythene bags (popularly known as flying toilets) for defecation which was disposed of at night. This phenomenon led to some conflicts with neighbors that had this solid waste thrown into their yards (UN-Habitat, 2005). An enumeration study conducted in Kalikiliki revealed that the heavy use and proximity of the pit latrines to water sources in Kalikiliki needed special intervention in order to avoid the spread of waterborne diseases in the area (PPHPZ, 2013).

5.2.5 Indiscriminate Dumping of Waste

The results of the study showed that solid waste management is a major challenge in Kalikiliki settlement. It showed that 80 percent of the residents in the settlement dispose of their waste at sites that have been informally adopted by the community as dumpsites. Kalikiliki has four common dumpsites all of which are next to residential dwellings which creates an environmental hazard for the people living there. Another 20 of the residents engaged the services of persons looking for piecework to dispose of their waste which would be at the same undesignated dumping grounds. However, sometimes individuals would sometimes throw litter into neighboring property creating land conflicts which accounted for two percent of the land use conflicts identified in Kalikiliki. The absence of a solid waste management system was the main cause of this type of land use conflict.

Generally, Lusaka City as a whole suffers from the problem of illegal solid waste dumping due to inadequate resources at the Lusaka City Council to provide sustainable solid waste management systems. The problem of uncollected solid waste in the City can be traced back to 1978, when it surfaced as a challenge in the

upgrading of Chawama Compound (Bamberger, *et al.*, 1982). The main challenge attributed to garbage removal in Chawama, was the inadequate inner access roads within the settlement. This prevented garbage trucks from reaching the inner areas within the settlement and consequently garbage was not collected (Bamberger *et al.*, 1982).

The problem of uncollected garbage in Kalikiliki has resulted in local communities through various community-based organizations getting involved in solid waste collection and management. However, the common practice for the residents in high-density areas, because of little space within their yards, is to transfer their waste to the edge of the compounds and/or dump it along the roadsides (LCC, 2014). This practice is evident even in Kalikiliki as shown in Figure 10 where waste is dumped along the roadside and on swampy land within the settlement.



Figure 10: Dumpsite along the main Access Road

(Source: Field Data, 2015)

The dumping of waste within the vicinity of the Kalikiliki Christian Reformed Church shown in Figure 11 initially was an attempt to fill up the stream which was posing as a danger to school going children crossing it as they were vulnerable to drowning on their way to school. The intention was to fill the waterlogged area with garbage and afterward cover it up with gravel soil. The site would then be used for construction of housing units (Community Member, 2013). However, to date, this

dumpsite has remained uncovered, and has now become a health risk and environmental hazard.



Figure 11: Dumpsite next to the Kalikiliki Christian Reformed Church

(Source: Field Data, 2015)

The continuous indiscriminate dumping of garbage in the settlement forced pastors from the Kalikiliki Christian Reformed Church to organize themselves to try and clear the rubbish in the settlement. However such attempts have proven futile as the level of garbage overrides community institutional capacity and peoples efforts to collect the garbage (Community Member, 2013). The initiative of community structures to improve the living standards of its residents is an opportunity that can be exploited during an upgrading exercise in order to foster compliance towards regulations targeted at improving solid waste management in the area.

In answering the first objective of the study that sought to assess the types and causes of land use conflicts in Kalikiliki settlement, the first part of this chapter has shown the types and causes of land use conflicts experience in the settlement as summarized in Table 1.

Table 1: Types and Causes of Land Conflicts in Kalikiliki

S/N	Types of Land Conflict	Causes of Land Conflict
1.	Land encroachment	1) High plot coverage due to limited security of tenure rights 2) Absence of an up-to-date register to identify plot boundaries 3) Lack of conflict documentation 4) Undefined plot boundaries
2.	Conflicts of public interest	1) Limited accessibility within the settlement 2) Absence of an up-to-date register to identify plot boundaries 3) Undefined plot boundaries
3.	Double land allocation	1) Corruption within the community leadership structure 2) Absence of an up-to-date register to identify plot boundaries
4.	Improper sitting of pit latrines	High plot coverage due to limited security of tenure rights
5.	Indiscriminate dumping of waste	Inadequate solid waste management system

(Source: Field Data, 2014)

5.3 Land Use Conflict Resolution Mechanisms

The results show that the mechanisms used in the resolution of the identified land use conflicts were own negotiations between the two parties in conflict and negotiations with the help of local community institutions. The institutions that were responsible for conflict resolution in Kalikiliki were the Ward Development Committee (WDC), the Lusaka City Council (Mtendere Office, which had jurisdiction over Kalikiliki), and the Zambia Police.

In the resolution of land use conflicts 30 percent of the respondents engaged in own negotiations with the other party in conflict without the help of a third party. The other 70 percent of the respondents engaged in negotiations with the help of a local community institution as indicated in Figure 12.

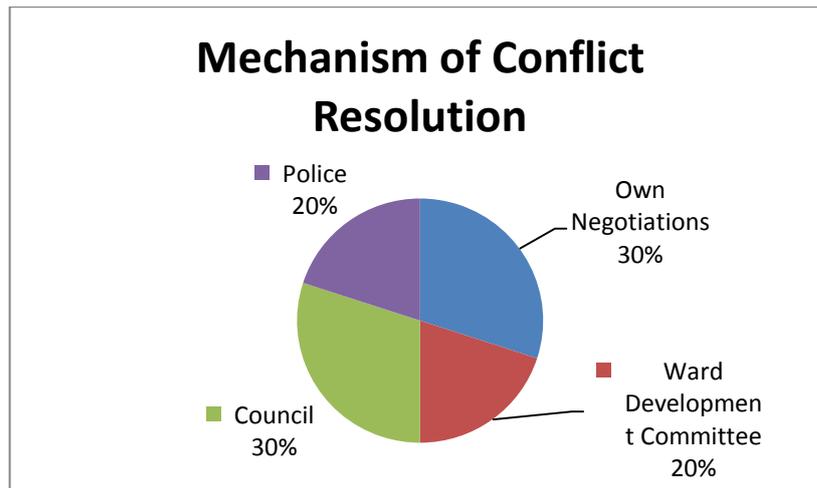


Figure 12: Mechanisms of Land Use Conflict Resolution

(Source: Field Data, 2015)

5.3.1 Own Negotiations

The research showed that negotiations' resulting in a common agreement between aggrieved parties accounting for 66.7 percent of the respondents, was the most common factor used in resolving land use conflict.

When a land dispute arose in the Kalikiliki settlement, the parties in conflict would first engage in dialogue and negotiation on how best to resolve the conflict. The manner in which these negotiations were carried out or the orientation of each of the parties in dispute towards the process determined whether the process would be resolved between the two parties or would need the intervention of a third party. Sometimes the respondents involved in land conflict situations did not want to live in constant conflict with their neighbors and opted to come up with a solution even if it meant that they would lose out on part of their land. This scenario was prevalent in encroachment cases where the offender had already completed the structure that had encroached into the neighbors land. This was also the case for some of the cases which were brought before the council and the WDC which simply played the role of mediator. It also determined whether the conflict resolution process would be constructive or destructive.

The theory of competitive and cooperative conflict resolution as postulated by Deutsch (2006), suggests that constructive processes of conflict resolution are similar

to cooperative processes of problem solving, and destructive processes of conflict resolution are similar to competitive processes. Deutsch (2006), states that the use of the cooperative approach in conflict resolution creates effective communication channels through which ideas and opinions are verbalized. In this process members are attentive to one another, accepting the ideas of other members and have fewer difficulties in communicating with or understanding others. With this conflict resolution approach there is coordination of effort, division of labor, orientation to task achievement, orderliness in discussion, and high productivity are manifested in the cooperative groups (Tjosvold *et al*, 2014). In the discussions, there is a feeling of agreement with the ideas of others and a sense of basic similarity in beliefs and values, as well as confidence in one's own ideas and in the value that other members attach to those ideas (Bayazit and Mannix, 2003).

On the other hand, the use of the competitive style to conflict resolution, communication is impaired as the conflicting parties seek to gain advantage by coercing the other into following their line of thinking either through the use of threats or intimidation (Morril, 1995). The process generally creates obstructive tendencies and lack of helpfulness leading to mutual negative attitudes and suspicion of one another's intentions (Deutsch, 2006).

From the results of the Kalikiliki study, about 47.7 percent of the respondents did not agree with the outcome of the conflict resolution process. This entails that only 53.3 percent of the respondents were agreeable and therefore happy with the conflict resolution process. These results suggest that the process of conflict resolution was inclined towards the competitive approach. It can therefore be concluded that the prevalent style or approach to conflict resolution in Kalikiliki settlement is the competitive approach which is similar to a destructive conflict resolution process.

5.3.2 Negotiation with the Help of Local Community Institutions

In instances where negotiations between the parties in conflict failed to reach a solution, the matters would be taken to a third party who included the Lusaka City Council, the Ward Development Committee or the Kalikiliki Police.

5.3.2.1 Lusaka City Council

The land use conflicts that were resolved by the council include land encroachments, boundary disputes and double allocations. The parties in conflict through negotiations would be guided to reach a solution that would be agreeable to both parties. However in cases where there was no agreement in matters to do with land encroachments and boundary disputes, the council officer, at his discretion would make a decision on the boundary line to be followed by both parties. Since the occupancy license obtained from the Lusaka City Council by the residents only gave them rights to the actual development on the plot such as house or pit latrine and not the surrounding land, any land outside the building was deemed to be council land which they do not have any rights to. Some of the residents would not be agreeable with these resolution outcomes, which resulted in unsustainable conflict resolution as the conflict would be bound to surface again in future. These respondents felt that the deliberations did not take into account their view on the matter and that the process was biased. They also felt that the process was not equitable and that they were unable to effectively express their concerns about the conflicting situations.

In ensuring sustainability of a conflict resolution process, agreement between the parties in conflict was identified as an important parameter. Tudor *et al* (2014), in their conflict resolution model identified the consentaneity, which refers to an agreement among involved actors as the most important factor in resolving conflict. They stated that reaching a final agreement in the land use conflict resolution process indicated success when the agreements were able to last for a long time and to promote more economic efficiency or ecological protection of landscapes. In the hierarchy of factors used to measure success in land-use conflicts resolution, reaching an agreement (unanimously or not) should be considered the first criterion because it is a valuable component that may bring about social cohesion, economic development and environmental protection (Beck, 2004). Sze and Sovacool (2013) highlighted equity as another important factor in the successful resolution of land use

conflicts. Equity refers to the degree of equality in influence of actors in the decision-making process. In this criterion, the informal and formal actions of actors either to express concerns about the conflicting situations or to build trust are assessed (Sze and Savacool, 2013).

The failure to foster agreement in the Kalikiliki land use conflict resolution process was in part due to the orientation towards conflict resolution that each of the parties in conflict came to the negotiation table with. They were more concerned with winning the cases as opposed to finding an amicable solution to the problem. Thus it is the premise of this research that for sustainable land use conflict resolution to be achieved, the use of the cooperative approach to conflict resolution would evoke an atmosphere of trust and eventually lead to mutually beneficial options for both parties involved.

5.3.2.2 Ward Development Committee

The results of the study show that 20 percent of the land use conflicts experienced in Kalikiliki settlement were resolved with the help of the Ward Development Committee.

The WDC, being the lowest unit of governance in the settlement, is mandated with the task of organizing these settlements for both political and developmental purposes. The WDC was involved in the resolution of various kinds of conflicts within the settlement including land use conflicts. Despite having a regulatory framework to guide its functions, the results show that the institution is prone to abuse by its office holders due to the political inclination of the persons holding office (Community member, 2013).

Prior to the establishment of Ward Development Committees, the institutions mandated to manage development at the local level were the Area Development Committees (ADC's). The ADC's were charged with the responsibility of overseeing development at the lowest level within communities (LCC, 2014). However, these committees were overshadowed by the politicians who were the dominant forces in the settlement (Bamberger *et al.*, 1982).

Respondents in Kalikiliki revealed that the ADC had become highly politicized and in many instances engaged in illegal land allocation to residents. Some office holders within the ADC had begun dubiously allocating land to people that were in need of the commodity and in some instances would sell land to more than one individual resulting in conflicts of public interest and double allocations which accounted for 18 and 13 percent respectively. The allocation of these land parcels was not based on any layout plan and hence boundary definitions for the parcels were not clear leading to boundary conflicts.

However it must be stated that Kalikiliki does not have a Ward Development Committee but instead the area falls under the Mtendere WDC, a development that Kalikiliki residents feel disadvantages them because issues specific to Kalikiliki settlement are not taken given absolute attention. This is compounded by the fact that the Mtendere Ward Development Committee has an interim executive committee that is believed to have been appointed by the area ward councilor. This interim committee is not functional and there are differences between the ward councilor and the WDC chairperson (UNZA, 2013).

Lessons can be learnt from the Ubungo Darajani land regularization process of settlement in Tanzania in which the challenge of lack of transparency was resolved through the transformation of the community leadership structure. The project which was aimed at improving infrastructure facilities and services, preventing haphazard housing development and encroachment on roads as well as improving their security of land tenure; initiated a community leadership change and embarked on selecting committed individuals that would spearhead the regularization process at community level. The study noted that commitment by a community without persons who were catalysts for action e.g. ready to take a lead and continuously follow-up decisions and issues could not guarantee success. The community had observed that many good ideas and decisions were brought up by groups or even community assemblies in past regularization attempts, but were not implemented because of lack of follow-up and commitment to realize agreed outcomes (Magigi and Majani, 2006).

The local community structure overhaul in Ubungo Darajani, also involved the training of the individuals selected to be on the committee in order for them to better comprehend the problem of regularization. The new leadership was able to mobilize

the residents to implement land management activities in collaboration with community organizations in a transparent manner, including openly displaying information about ongoing land management activities. The transparency in information dissemination enhanced trust and encouraged residents' participation and contribution to the land regularization project (Magigi and Majani, 2006).

5.3.2.3 Kalikiliki Police Post

The result of the study revealed that land use conflicts that the Police were in two categories. The first type of conflicts received were double allocations an offence they described as obtaining money by false pretense and the second were land encroachments categorized under criminal trespass. It was revealed that the institution received on average three to four cases of land use conflicts on a monthly basis.

The negotiation in conflicts of multiple sale of land, usually were resolved by the police. When a matter was reported to the police, a docket would be opened and the parties in conflict would appear before the police. The police would engage the two parties in conflict into a negotiation process which in most cases would result in settlement outside the formal legal provisions. The offender would be given a specific period in which to reimburse the complainant in order to avoid taking the matter to the courts of law. Many of the cases were resolved at this stage with only three cases during the period under review having proceeded to the courts of law. These negotiations carried out at the Police, were meant to ensure fairness among the parties in conflict. The conflict resolution process took the approach of the cooperative approach to conflict resolution. The police tended to be sympathetic towards the party that had been wronged and provided an environment in which these residents would reclaim what they had lost. Since many of the respondents earned low incomes, taking the disputes to the courts of law would be very expensive for them, leading to dissatisfaction and continuation of the land use conflicts. The use of the cooperative conflict resolution approach by the Police, created an opportunity for the parties in conflict to work together to find a solution that would be agreeable to both parties. However, as seen from the three cases that opted to proceed to the courts of law, sometimes depending on the officers handing the case of land use

conflict brought to the Police, the use of the competitive or “fighting” approach to conflict resolution through the use of threats and coercion tended to perpetuate the dispute.

In land encroachment cases, the offenders would usually resort to compensation to the sum of the value of the land encroached on. Generally, the residents of Kalikiliki preferred to have their land use conflict matters resolved by informal or local community institutions as opposed to the formal court process.

The preference of local community institutions as opposed to the formal courts of law was also seen a study conducted by Yamano and Deininger (2005) in Kenya in 2004 which established that over 89 percent of the cases involved in land conflicts were brought to informal institutions. It also showed that only 25 percent of them being taken to formal institutions. For many of the residents, financial constraints restricted them from taking their matters to the formal court institutions. These preferred to use community institutions present within their respective settlements. In addition, the formal courts of law took a long time to dispose of matters brought before them resulting in the perpetuation of the land conflicts.

The importance of the role of local community institutions in the resolution of conflicts within a community can be seen in the Chang’ombe informal settlement in Tanzania. The residents of this settlement experienced chaotic settlement development when the community leadership structures and grass-root actors were abolished when the settlement was regularized. These community institutions had played active roles in ensuring proper lay out of the houses in an orderly pattern (Kombe and Kreibichi, 2001).

In answering the research question number two that sought to identify the mechanisms used in land use conflict resolution, the results explained in the sections above show that the mechanisms used in the resolution of the identified land use conflicts were negotiations between the two parties in conflict and negotiations with the help of third party members who constituted institutions comprising of the Lusaka City Council, Ward Development Committee and the Zambia Police. In

instances where these institutions failed to resolve a conflict, the matter would be referred to the courts of law.

5.4 Conflict Resolution Parameters

The third objective sought to identify parameters that could be used to promote successful land use conflict resolution in a settlement earmarked for upgrading. The results show four factors as important parameters that needed to be strengthened in order to promote sustainable conflict resolution.

5.4.1 Equity and Agreement in the Negotiation Process

The study showed that 68 percent of the respondents stated that negotiations constituted a cardinal factor in resolving land use conflict. However, 47.7 percent of the respondents did not agree with the outcome of the conflict resolution process increasing the potential for the conflicts to reoccur in future.

Coburn, (2015) states that, the type of negotiation that an individual engages in defines whether the conflict resolution will result into a deadlock, or will create a valuable and enduring relationship. He outlines five types of negotiation modalities that an individual can use in conflict resolution. These negotiation approaches include competing, avoiding, accommodating, compromise and collaboration as shown in Figure 13.

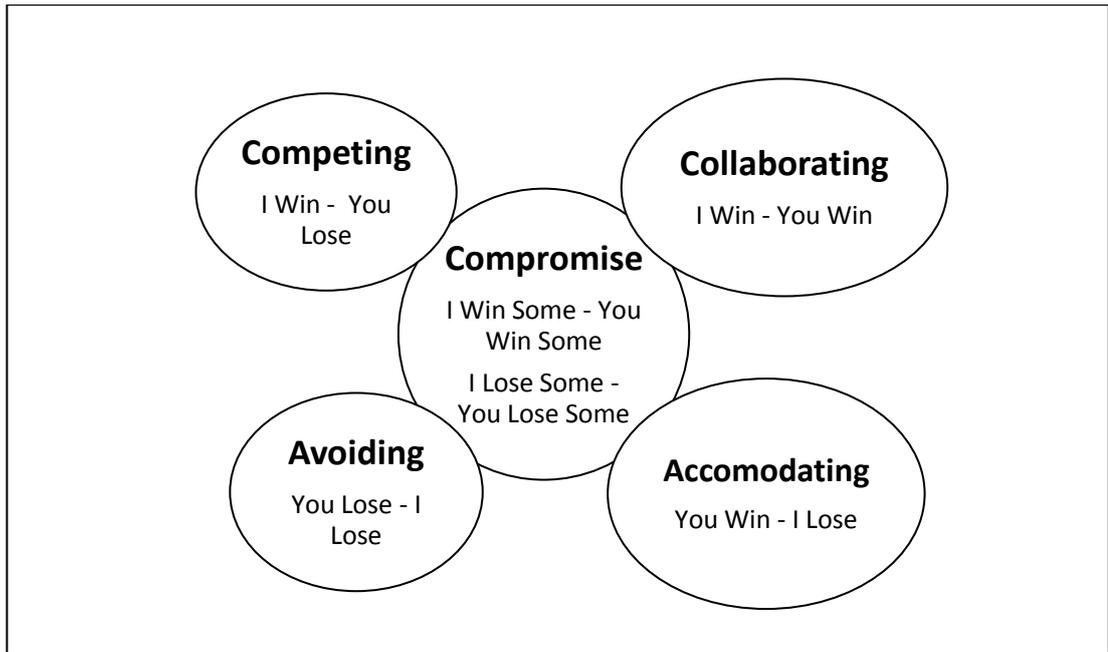


Figure 13: Conflict Model - Typical Behaviors

(Source: Corburn, 2015)

5.4.1.1 Corburns Conflict Negotiation Styles

- 1) *Competitive Negotiation*: In this method of negotiation, competitive style negotiators pursue their own needs. Their focus is mainly on their shorter term gains. They often use whatever power and tactics they can muster including their personality, position, economic threats, and size in order to gain what they want.
- 2) *Accommodative Negotiation*: This method to negotiation is the opposite of the competitive approach. People using this method are more concerned with preserving the relationship between the parties in conflict. They presume that in order to win peoples approval, they must give them what they want. They value people's opinion of themselves within the community.
- 3) *Avoidance Negotiation*: In this approach, the person engaged in the negotiation approach, mostly does not like engaging in conflict. They are often passive and rather than talk directly about the issue, they may instead resort to taking revenge.

- 4) *Compromising Negotiation*: Negotiation using compromise involves splitting the difference, resulting in an end position of about half way between both party's expectations of the results.
- 5) *Collaborative Negotiation*: Collaboration is about making sure both parties have their needs met. Collaborative negotiators usually evolve through the other approaches to negotiation and grow into a collaborative negotiation style. Negotiators using this approach can easily revert to one or two of the other styles when pushed or when the situation calls for it. They facilitate for the needs of the other party to be met in order for all parties in the conflict involved to have a win-win solution.

The results of the study in Kalikiliki suggest that the predominant methods of negotiation in land conflict resolution are competition, avoiding and accommodating. This is seen in the 48 percent of the residents who did not agree with the conflict resolution outcomes. These results also show that almost half of the respondents involved in land use conflicts either used the avoiding or accommodating methods to land use conflict resolution. However, these residents were not happy with the results of the negotiation process leading to high chances of the land use conflict resurfacing in future especially for residents who tend to avoid confrontation but may resort to revengeful tactics. The failure to foster equity and agreement in the conflict resolution process was attributed to the conflict resolution approach used by the residents in conflict and the community leadership structures in the resolution of land use conflicts.

The study also suggests that a large number of the 53 percent of the respondents who stated that they were happy with the conflict outcome results predominantly used the competitive approach to conflict resolution in ensuring that their needs were met. The competitive style of conflict resolution is generally considered a destructive process of conflict resolution. The result of this conflict resolution process is that the conflict becomes a power struggle between the parties in conflict and the conflict is no longer confined to the land dispute but extends to every other aspects of their day-to-day activities.

The approach used in conflict resolution, whether it is the cooperative approach aimed at ensuring mutual benefits between the parties in conflict or the competitive approach which seeks to win at all costs, is thus an important parameter that needs to be addressed in land use conflict resolution.

5.4.2 Strengthening of the Ward Development Committee

The results of the study showed that the majority of the respondents preferred to have their land use disputes heard by the local community institutions as opposed to the few who opted to go to the courts of law.

However, results from a cross tabulation of the type of the conflict and the source from which an individual obtained their land parcel show that the highest number of conflicts occurred on land that was obtained from the Ward Development Committee accounting for 40 percent followed by properties obtained from individuals accounting for 31.67 percent as shown in Table 2.

Table 2: Cross Tabulation of the Nature of Conflict and Property Source

Type of Conflict	Source of Property				Total
	Council	WDC	Individual	Inherited	
Land Encroachment	8 (22%)	14 (38.89%)	10 (27.78%)	4 (11%)	36 (60%)
Public Interest	1 (9%)	3 (27%)	6 (54.5%)	1 (9%)	11 (18%)
Double Allocations	0	6 (75%)	2 (25%)	0	8 (13.3%)
Pit Latrine Siting	2 (50%)	1 (25%)	0	1 (25%)	4 (6.7%)
Waste Dumping	0	0	1 (100%)	0	1 (1.6%)

(Source: Field Data, 2015)

These results suggest that plots were awarded in a non-transparent manner to individuals, hence the large number of conflicts of double land allocation. Many of the individuals who experienced double allocation land use conflicts originally obtained their land from the WDC and sold to unsuspecting buyers in order to rid themselves of the land use conflicts in instances where they could not get back their money from the original seller.

The political nature of the WDC rendered law and order ineffective in dealing with officials who tended to use their positions for personal benefit. It was also brought to

light that the local community leadership structures during the 1990's and early 2000s' were corrupt and not patriotic to the wellbeing of the community members but instead led to the deteriorating conditions that have since perpetuated land use conflicts in the settlement.

These results entail that the operations of the WDC in Kalikiliki lack of transparency with regards to land allocation, coupled with political patronage, thereby leading to mistrust of the institution by the community members.

The UN-Habitat (2010), asserts that conflict becomes problematic when societal mechanisms and institutions for managing and resolving conflict break down, giving way to violence. Many societies with weak community institutions can be drawn into cycles of conflict and violence. Community leadership structures can play a pivotal role in determining whether land grievances become violent. Leaders often have tremendous influence over their constituencies and can channel disputes into violent or non-violent paths. Paudyal, (2006) identified lack of clear institutional arrangements as a factor that can result in land use conflicts.

The WDC constitutes one of the cardinal land use conflict resolution institutions available to the residents of Kalikiliki. The efficient and transparent operation of this institution is an important factor in the sustainable resolution of land use conflicts. The residents who bring land conflict matters to the WDC need to have assurance that their case will be heard in a manner which will facilitate collaborative effort in resolving the problem. The process must enable both parties to be able to recognize the legitimacy of each other's interests and the necessity to search for a solution that will meet the needs of all in a spirit of give and take. With the foregoing, transparency and accountability within the local community leadership structures becomes an important parameter in achieving sustainable land use conflict resolution.

5.4.3 Conflict documentation

The absence of a land use conflict register at the Council office was identified as one of the causes of land encroachment cases. This was especially prevalent in encroachment cases that periodically reoccurred on the same plots. There were no

records of households that had undergone land use conflicts and how they were resolved at the Lusaka City Council. This meant that conflicts that had been resolved in the past could reoccur in future.

Documentation of land transactions is indispensable with successful land use conflict resolution because institutions which rely on discussion and consensus may not be able to cope with or manage conflict that arises in the future (UN-Habitat, 2010). The data collected through conflict documentation can also be useful for monitoring trends, analyzing types of conflicts and the outcomes of any interventions. Documentation establishes patterns of behavior which serves as an indication of the resident's needs and concerns (UN-Habitat, 2010). It is important for the WDC and the Council office to have a record of incidents, meetings and confrontations with regards to land use conflicts that would give vital information to the type of approach to use when resolving the matter.

Documenting land conflicts can also contribute to efficiency and transparency in the operations of the Ward Development Committee since members of the Kalikiliki community will have knowledge of the activities and programmes of the WDC.

5.4.4 Security of Tenure

The results showed that 91 percent of the respondents were in possession of an occupancy license for their property while 9 percent did not have an occupancy license for their property. The results also showed that the rights provided for in the occupancy license were limited to the building and not the plot. The limitation of the occupancy license to only the building on the land did not provide the residents with adequate security of tenure of their property. Hence the residents of Kalikiliki were prone to engaging in land encroachments and boundary disputes with and from neighbors. The results of the study have shown that the type of rights provided for in the occupancy license have an important bearing on the sustainability of a land use conflict resolution process.

Having security of tenure is an important aspect to many families and individuals living in informal settlements. It gives these people certainty about what they can do with their land or home; and it offers them protection from encroachments by others

(Paudyal, 2006). Security of tenure is thus an important parameter for the sustainable resolution of land conflicts.

The four parameters identified as factors that need to be taken into account if a conflict resolution process is to be successful, are in response to the research question that required the identification of parameters that could be used to promote successful land use conflict resolution in settlement upgrading. These include equity and agreement in the negotiation process, transparency and accountability in the community leadership structure, conflict documentation and security of tenure.

CHAPTER 6: CONCLUSIONS AND RECOMENDATIONS

The aim of the study was to identify mechanisms that can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process. In addressing the aim, the study sought to provide answers to three main objectives which included an assessment of the causes and types of land use conflicts in Kalikiliki; identification of the mechanisms used in land use conflict resolution in Kalikiliki settlement and finally an identification of the parameters that can be used to promote successful land use conflict resolution in a settlement earmarked for upgrading.

6.1 Conclusion

The first objective showed that the main type of land use conflict experienced in Kalikiliki settlement was land encroachment. This was followed by land use conflicts of public interest, double land allocation, improper siting of pit latrines and indiscriminate dumping of waste in the neighbor's property. These conflicts were caused by corruption, lack of a land register, limited accessibility networks within the settlement, lack of conflict documentation, absence of a solid waste management system, limited security of land tenure and undefined plot boundaries.

In terms of the second objective, the mechanisms used by the residents in the resolution of land use conflicts include own negotiations between the warring parties and negotiations with the presence of officials from institutions such as the Council, Ward Development Committee and the local Police. Most of the residents of Kalikiliki preferred to use these local community conflict resolution structures as opposed to the courts of law. The residents were more comfortable with the local institutions whom they felt were better placed to handle their conflicts since they comprised of personnel that lived among them who could understand their circumstances. Since negotiations, was a major instrument in resolving land use conflicts, the use of the cooperative approach to conflict resolution which a constructive method of conducting negotiations is a skill that needs to be used by officers from the institutions involved in land conflict resolution. This will ensure that the cases were disposed of in time and in accordance with customized community codes of conduct with regards to land use regulations.

The parameters that were identified as important components in the resolution of land use conflicts on the third objective were ensuring equity and agreement in the conflict negotiation process, promoting transparency and efficiency within the local community leadership institution, the documentation of land use conflicts to prevent their reoccurrence and improving the security of tenure provided for in the occupancy license.

The overall conclusion of the study is that the mechanisms of land use conflict resolution in Kalikiliki settlement are predominately negotiations with the parties in conflict or negotiations with the help of the community leadership structures. In addition, the prominent method of conflict resolution is the competitive approach to conflict resolution, which does not promote mutual benefit and ownership to the outcomes of the conflict resolution process.

6.2 Recommendations

Based on the results of the study, the following recommendations are made:

- a) The institutions involved in land use conflicts resolution in Kalikiliki need to embrace the cooperative disposition to resolving conflicts which will ensure an atmosphere of trust and eventually lead to mutually beneficial options for both parties. Negotiations in the resolution process are to be resolved in an equitable manner, ensuring that there is agreement on the outcome in order to avoid reoccurrence of the same conflict in future. Thus there is need to strengthen community based conflict resolution structures so as to make them more efficient to hand the land use conflicts that are brought before them. The Lusaka City Council can best achieve this in the orientation of councilors and community leaders meetings when they assume office.
- b) There is need for increased transparency in the activities and programmes of the Ward Development Committee. The Lusaka City Council needs to revise the guidelines used in the selection of the Ward Development Committee in order to ensure that the community leaders serving on this committee are accountable to the community members. This will help in ensuring that conflicts that arise in the

settlement are resolved in a manner that is transparent. In addition, it will also enhance community compliance towards land use regulations.

- c) There is need to document land conflict transactions and their resolution by the Lusaka City Council need in order to manage conflict that may arise in the future. Documenting land conflicts can also contribute to transparency in the community leadership structure and consequently the successful resolution of land use conflicts.
- d) The Ministry of Local Government needs to revise the provisions of the occupancy license so that the rights of the property owner could include the surrounding environment thereby promoting the sustainability of land use conflict resolution. This will enhance confidence in the residents that their land will not be arbitrarily taken away or reduced during the upgrading process.
- e) In developing strategies to enhance socio-economic sustainability of an informal settlement, the upgrading process should focus on working with residents with low education levels and those engaged in self-employment initiatives. Thus, the creation of productive employment opportunities is an essential component for achieving poverty reduction, sustainable economic and social development as well as land use regulation compliance.
- f) The Lusaka City Council in collaboration with the Kalikiliki residents need to develop an efficient and sustainable waste disposal system that will improve the environmental conditions and reduce land use conflicts in the settlement.

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APPENDIX

Appendix A

**The University of Zambia
School of Natural Sciences
Department of Geography and Natural Sciences**

Kalikiliki Households Interview Schedule

Dear Respondent

This questionnaire is intended to obtain information to help in identifying the causes and nature of conflicts experienced in Kalikiliki settlement. It will also assess the conflict resolution process and the mechanisms for land use conflict resolution. The aim is to identify mechanisms that can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process. The study is required in partial fulfillment of the completion of the award of the Master of Science in Spatial Planning at the University of Zambia. The answers provided in this questionnaire will be purely for academic purposes and will be treated with utmost confidence. Your kind assistance will be greatly appreciated.

1. Sex of respondent . Male () b. Female ()
2. Employment status a. Contract () b. Casual () c. Full Time ()
d. Unemployed () e. Other (Specify)
3. Age of respondent a.>20 () b. 21-30 () c. 31-40 () d. 41-50 ()
e. 50+ ()
4. Level of education attained a. None () b. Secondary () c. Tertiary
d. Primary ()
5. How much do you earn on a monthly basis a. Less than K1000 b. K1001 –
K2500 c. K2501 – K5000 d. K5001 – K7500 e. More than K7500
6. How long have you been in Kalikiliki a.>1 year () b. 1-5 years () c. 6-10
years () d.11-15 years () e. More than 15 years ()
7. Are you a tenant or owner of the property (if answer is b skip to question 11)
a. Property Owner () b. Tenant ()
8. How did you obtain your property a. From the council () b. From the WDC ()
c. From an individual () d. Inherited () e. Other (specify).....
9. Do you have an occupancy license your property
a. Yes () b. No ()

10. If No. State the reason for your not having an occupancy license.....
11. Have you experienced any land related conflicts during your stay in Kalikiliki?
 a. Yes () b. No ()
12. What was the nature and cause of the conflict experienced in question 11.

13. What was the cause of the conflict.....
14. What mechanisms (i.e. own negotiations, institutions or community leadership structure) where at your disposal to resolve the conflict?

15. How easily accessible was the conflict resolution structure (i.e. need for monetary contribution, political affiliation etc)

16. What criteria or basis was used to resolve the conflict?.....
17. Did you agree with the outcome of the process? a. Strongly agree () b. Agree () c. Strongly Disagree () d. Disagree () e. I don't know ()
18. If No, state the reasons for not agreeing with the conflict resolution outcome.....
19. What factors do you think should be taken into account when resolving land use conflicts

Appendix B

**The University of Zambia
School of Natural Sciences
Department of Geography and Natural Sciences**

Institutional Interview Guide

Dear Respondent

This questionnaire is intended to obtain information to help in identifying the causes and nature of conflicts experienced in Kalikiliki settlement. It will also assess the conflict resolution process and the mechanisms for land use conflict resolution. The aim is to identify mechanisms that can be used to promote successful land use conflict resolution in a settlement earmarked for an upgrading process. The study is required in partial fulfillment of the completion of the award of the Master of Science in Spatial Planning at the University of Zambia. The answers provided in this questionnaire will be purely for academic purposes and will be treated with utmost confidence. Your kind assistance will be greatly appreciated.

1. Name of the Organization
.....
2. Year it was established?.....
3. Outline your objectives.....
.....
.....
4. What role does your organization play in land use conflict resolution in Kalikiliki?.....
.....
5. What are some of the land use conflicts that your organization has mediated in
.....
.....
6. What are some of the criteria that you use in resolving the conflicts in question 5?.....
.....
.....
7. What do you classify as a successful land use conflict resolution (indicators)
.....
.....
.....
8. How easily accessible are the services of your organization with regards to conflict resolution by the local residents (i.e. need for monetary contribution)
.....
.....
.....

APPENDIX C
OBSERVATION CHECKLIST FOR THE RESEARCHER

Areas to be observed	Comments
Adherence to land use regulations (building coverage in relation to plot size, sanitation facilities, number of households per plot e.t.c)	
Effect on land use conflict on solid waste management methods	