



UNIVERSITY OF NAIROBI

The challenges of providing low income housing:

A Case study of Nairobi County developers

John Gachunga Kamau

B.A (Econ) Hons (UON)

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Declaration

I, the undersigned, declare that this research project is my own original work and that this work has not been submitted for any other degree in any other university/institution.

Author (sign): í í í í í í í í ...

Date: í í í í í í í í í

JOHN G. KAMAU

I declare that this research project has been submitted for examination with my approval as the university supervisor in the Department of Real Estate and Construction Management.

Supervisor (sign): í í í í í í í í í í .

Date: í í í í í í í í .

Prof. P M SYAGGA

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May the Lord bless you all.

Acronyms

AMCHUD; African Ministerial Conference on Housing and Urban Development

KENSUP; Kenya National Slum Upgrading Programme

KNBS; Kenya National Bureau of Statistics

KPDA; Kenya Property Developers Association

MDGs; Millennium Development Goals

NGOs; Non Governmental Organizations

NHC; National Housing Corporation

RoK; Republic of Kenya

UN; United Nations

V AT; Value Added Tax

Abstract

Housing is the provision of shelter; an abode to live in. Shelter should be adequate, affordable and decent. Adequate in that, there are enough good quality rental and owner occupier housing units for all income groups. Affordable in that total housing costs are affordable especially to the low income earners. Decent in that it provides a foundation for good physical and mental health, personal development and fulfillment of life objectives.

Free markets unleash productivity and innovation but they are still bound by economic laws. The most important law is that market price reflects market demand. Given that a high population in the country is below median income and that the housing commands market prices, a marked shortage is experienced in the supply of low income housing. As a result, markets have not satisfactorily housed the nation's poorest citizens.

The research study focused on the challenges faced by housing developers and the models used by the developers in the low income housing market. Challenges identified included the rising cost of construction materials, high cost of land in urban areas, the complicated land acquisition process, high transaction costs and the lack of adequate infrastructure. The rising cost of construction materials was identified as the worst challenge to the development of low income housing followed by rising cost of land. The study further revealed that the site and service schemes as the most favored model for low income housing with 35% of the respondents approving the model. 19% of the respondents favored the sites plus gradual implementation of services model.

The findings of this study show that the high cost of construction materials coupled with high cost of land and finance contribute to the high deficit in the supply of low income housing since it's impossible to cater for the low income given the prevailing market conditions. Moving forward, there will be need to incorporate appropriate building technologies to enhance cost-effectiveness while driving the housing stock up, put mechanisms in place where houses can be purchased without the land component to beat the obstacle of high land costs and ensure that the government together with the socially motivated entrepreneurs offer homes for the bottom end of the market.

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CHAPTER ONE

INTRODUCTION

1.1 Background: Affordable Housing Overview

A country's national prosperity is usually measured in economic terms; however it is of diminished value unless all can share its benefits and if the growing wealth is not used to redress growing social deficiencies, one of which is housing (Erguden, 2001). Housing has a central importance to quality of life with considerable economic, social, cultural and personal and community significance. It also plays a huge role in revitalizing economic growth in any country (Ileri, 2010).

The universal declaration of human rights gives one of the basic human rights as the right to a decent standard of living, central to which, is the access to adequate housing (UN, 1948). Housing as a basic human right demands that urban dwellers should have access to decent housing, defined as one that provides a foundation for, rather than being a barrier to, good physical and mental health, personal development and the fulfillment of life objectives (Seedhouse, 1986). The focus of this research will be on low income housing.

Affordable housing is a term used to describe dwelling units whose total housing costs are deemed "affordable" to those that have a median income.¹ Although the term "affordable housing" is often applied to rental housing that is within the financial means of those in the lower

¹ A median income refers to the average pay scale level of the majority people in a population

income ranges of a geographical area, the concept is applicable to both renters and purchasers in all income ranges². Low-income housing³ is aimed at individuals in the low income socio-economic category to provide adequate housing for themselves and/or their families. These families are usually unable to purchase a home through mortgage because they fail to qualify. Thus, most families choose to rent. The available affordable rental housing for low income families is inadequate.

1.1.1 Housing Developers and Market Players

Housing development⁴ is a capital and labour intensive process that starts from conceptualization of the idea, predevelopment, construction and operation. In the conceptualization stage, the developer determines the basic parameters of the proposed development and in the predevelopment stage, the specific tasks necessary to be ready to begin the actual housing construction are undertaken. After the two stages are complete, the actual construction of the house starts followed by operation when construction is finished.

Despite some attempts at achieving decent housing for Kenyans, Kenya has, on the whole, failed to address the dire housing conditions of her population. The situation has been partially

² <http://www.answers.com>

³ Generally, any housing that is limited to occupancy by persons whose family income does not exceed certain preset maximum levels i.e. below the median income. For purposes of special tax incentives provided to persons who build or rehabilitate 'quality low income housing projects', its defined as (a) any project in which 20% or more of the units are both rent restricted and occupied by persons whose income is 50% or less of the area of median income or (b) one in which 40% or more of the units are both rent restricted and occupied by persons whose income is 60% or less of the area of median income

⁴ Housing development means to develop or construct or cause to be constructed housing accommodation

alleviated through the activities of the private sector housing developers⁵, who have been a key supplier of housing, particularly in Nairobi (Hassanali, 2009). In the year 2012, the real estate sector registered a growth of 2.87% in the first three quarters (KNBS, 2012). But despite intensive overall real estate activity, these developers have mainly concentrated in the middle and upper segments of the market with relatively little focus on the low-income market. The low income housing units currently constitutes less than 30% of the private development portfolio (RoK, 2007), yet this is the segment where the need is particularly acute.

In the past, the government took up the role of housing supplier by controlling planning, land allocation, and development and maintaining housing estates, through the National Housing Corporation (NHC). The National Housing Corporation was formed as part of Kenya's post-colonial housing policy, underscoring the importance of providing decent shelter for all urban workers in the country. The NHC was charged with the responsibility of providing subsidized housing and implementing government housing policies and programmes through tenant purchase, mortgages, rental and rural housing loan schemes (Hassanali, 2009). While theoretically this should have been feasible, an acute problem arose as the central government expenditure on housing through National Housing Corporation was on a consistent decline upto 2002 stemming from activities of the parastatals, price controls, inappropriate building regulations and codes as well as a lack of basic planning and provision of services (Otiso, 2003)..

⁵ This study Takes a private sector housing developer to mean non-social housing sector developer

1.2 Problem Statement

Provision of adequate, affordable and decent housing for low income households is clearly inadequate. The players in this industry are too few and there seems to be a minimal interest of other private sector housing developers to provide low income housing units. The success of private sector developers in the middle and high income housing markets implies that they may have the capacity and skill set to adequately supply the low-income housing market to alleviate, at least partly, the low income housing shortfall in the country (Hassanali, 2009). But they have shied away from the low income market mainly because the profitability margins are lower as compared to housing developments for the other markets.

There are also many other factors affecting the housing supply by private sector housing developers, prominent of which is the cost of production and the opportunity cost to the developers' finite funds in either providing middle income housing or high income segment housing or low income housing. The developers have to consider the rate of return to their investment and how fast they will realize this. Provision of low cost housing to the increasing number of lower and middle income classes in the country has also been hugely affected by the cost of land and inadequate infrastructure. It is important to note that the above are not the only factors.

While Hassanali (2009) observes that the private sector developers' success in the middle and high income markets implies that they may have the capacity and skill to supply the low income market, little is mentioned on the challenges that the developers face in an attempt to supply low income housing as well as the models they prefer. This research aims to fill this gap by

investigating factors affecting private sector housing development for the low income housing market.

1.3 Research Objectives

The main objective of this study is to investigate the factors affecting private sector housing development for the low-income housing market. It specifically seeks to achieve the following objectives:

1. To identify and analyze the housing model that has been adopted by developers in the provision of low income housing.
2. To identify the challenges faced by housing developers in the provision of low income housing.
3. Make appropriate low-income housing provision policy recommendations

1.4 Research Questions

The research aims to answer the following key questions:

1. What are the housing development models that have been adopted for affordable housing?
2. What are the challenges faced by the developers in the low income housing market?

1.5 Importance of the research study

This research study will be of benefit to the following key stakeholders in the housing industry:

1.5.1 Housing Social Enterprises

Affordable housing is one key area for social enterprises. The research will highlight potential challenges to new social entrepreneurs venturing into this market allowing them early opportunities to overcome these obstacles in order to succeed in the low income housing market.

1.5.2 Developers' Associations and Lobby Groups

The outcome of this research will highlight key areas where private developers require reform, change or incentives in order to enter the low-income market. With this knowledge, developers' associations such as Kenya Private Developers Association (KPDA) can lobby for change and policy reforms as well as harness the collective strength of their developers to tap into the lower income market.

1.5.3 Academic and Business researchers

The study of the low income housing market is a very vast one and this research will give rise to key areas of weakness where there will be significant opportunity for further research in an effort to enhance investments in provision of low income housing.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section provides a review of various housing concepts and previous studies which have focused on the low income housing market. It aims at comparing and contrasting the different authors' views on low income housing, relating this research study to conclusions drawn, highlighting any gaps and summarizing on the specific gap that this research study hopes to contribute to.

2.2 Informal Housing in Kenya

Demand for housing far surpasses its supply in Kenya, especially in urban areas that have for long been associated with poor planning, resulting in an increase in informal settlements characterized by poor housing and little infrastructure services (UN, 2008). The housing market in Kenya has over the years posed a huge supply challenge for both government and private sector players. With a supply of about 35,000 housing units in urban areas per year against a growing demand of 150,000 per annum, the housing deficit remains huge challenge (Bonyo, 2010).

Against a backdrop of a growing population and rural-urban migration, low income housing is a major problem in Kenya especially in Nairobi city. Millions of people are living in the sprawling slums and also in other informal settlements around Nairobi (UN, 2008). Informal settlements

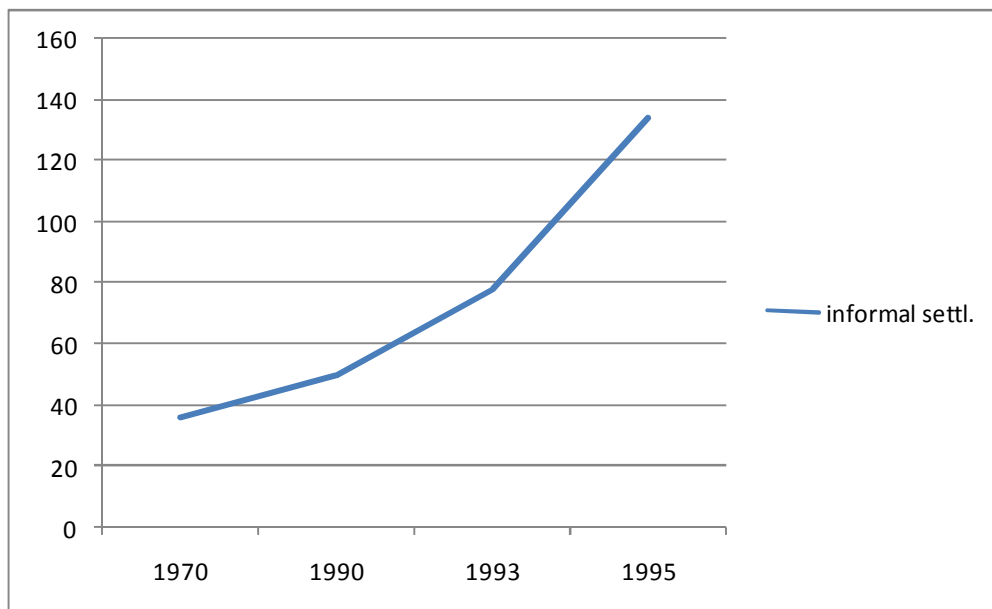
and slums in Nairobi have continued to grow at an alarming rate in number as well as in population. Table 1, figure1 and 2 shows the growth in informal settlements population and number, in Nairobi between the year 1971 and 1995.

Table 1 Growth in Informal Settlements in Nairobi.

Year	No. of informal settlements	Population	% of urban pop
1970	36	167,000	33
1990	50	200,000	40-50
1993	78	789,991	55
1995	134	1,886,166	60

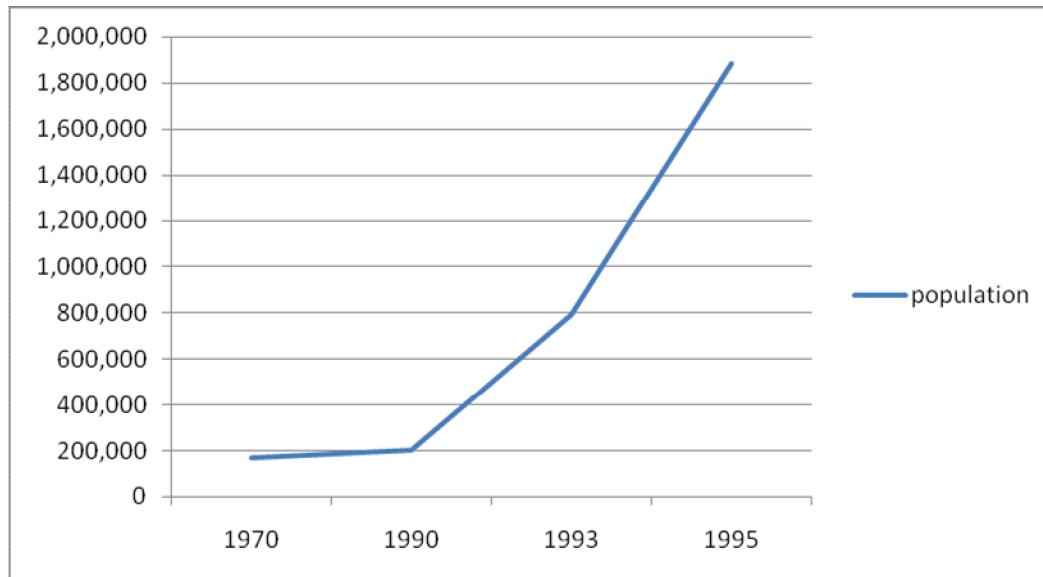
Source: Hassanali, 2009.

Figure 1; Informal settlements growth



Source; Author, 2013(based on Hassanali 2009)

Figure 2; population growth in informal settlements



Source; Author, 2013 (based on Hassanali 2009)

“Informal settlements” is a generic and technical term that seeks to capture the many different features of those settlements that house many of the urban poor in developing countries. The name that implies the dominant feature of such settlements is their informality – the fact that they develop outside the existing legal and regulatory framework. Informal settlements are sometimes called “unplanned” or “spontaneous” settlements, which is misleading, since many informal settlements are planned, albeit not in a conventional way, and are not all spontaneous (World Bank, 2003). The UN Habitat (2003) states that “informal” suggests a different way from the norm one which breaches formal conventions and is not acceptable in formal circles—one which is inferior, irregular and undesirable. For purposes of this study, informal settlement means shanty towns which are mainly built in the periphery of cities and often do not have proper sanitation, water supply and with degraded housing structures.

2.3 The Low Income Housing Market

“Everyone has the right to a standard of living adequate life for the health and well-being of himself and family, including housing. Adequate housing is essential for human survival with dignity. Without a right to housing, many other basic rights will be compromised.”⁶

The statement above captures the basic human right to a decent standard of living central to which is the access to adequate housing. Housing as a basic human right demands that people should have access to decent housing, one that provides a foundation for, rather than being a barrier to good physical and mental health, personal development and the fulfillment of life objectives (Seedhouse, 1986). According to Erguden (2001) housing has a central importance to quality of life with considerable economic, social, cultural and personal significance and though a country’s prosperity is usually measured in economic terms, increasing wealth is of diminished value unless all can share its benefits and if the growing wealth is not used to redress growing social deficiencies, one of which is housing.

Though free markets unleash productivity and innovation, they are still bound by economic laws. The most important law being that market price must reflect market demand. Market-quality housing commands market prices in a market where half of the population is below median income. As a result, Smith (2006) concedes that markets alone will never satisfactorily house a nation's low income group. Thus, whether people buy or rent, housing will typically be

⁶ United Nations: Universal Declaration of Human Rights, Article 25 (1948)

affordable to only half of the population. While the majority of citizens who migrate to cities are overwhelmingly poor, they arrive in cities designed for smaller populations, and whose housing market produce housing that these urban immigrants cannot afford. The result is a spontaneous community of self-built or informally built homes-the shanty towns, settlements, and ever-expanding slums that sprout on the outskirts of cities in the developing world. People who move to the city act on economic logic: they follow the money. Seeking to maximize income, these citizens willingly consume the least expensive space they can, which is often just a room in a larger informal structure. Smith (2006) noted that when the poor are left alone in the marketplace, they create and inhabit slums because that is their only available and economically sensible option.

The housing market is made up of sub-systems. There is a three tiered structure of housing markets. The first is the small, well-financed upper class market which is an exclusive domain of the private sector and draws its funds from institutional finance systems. The second type is the subsidized market catering primarily for middle class workers and civil servants who benefit from public housing. Finally, there is the large and private incremental housing sub-market with no access to formal financing services and which produces housing which does not generally conform to official building codes and regulations (Renaud, 1987). It's worth noting that the Kenyan market conforms to the three sub-systems of housing development. This study shall concentrate on the third tier.

2.3.1 Location

Traditionally, low income housing projects are sited in areas of low land cost and high density building permissibility. This allows reduction of the land cost component of each residential unit, facilitating sale at lower prices. In seeking areas with lower land costs, developers have had to undertake low income housing schemes in locations that are peripheral to urban centers where benefit is gained from the proximity to cities but land costs are significantly lower (Hassanali, 2009).

2.3.2 Infrastructure

Given the likely scale and location of any low income housing development, embedded infrastructure such as water, sewerage, roads, electricity, social services and security are a vital component of housing provision and are fundamental to the success of any housing scheme. These in turn, will greatly improve the people's economic capacities, health and quality of life in general (Nabutola, 2004). While very large projects may justify investment by the private sector in such infrastructure, majority of low-income housing developers rely on the government's supply of these basic services. Construction of affordable housing units has therefore been held back by poor road networks, security concerns and insufficient water and sewerage facilities. Otherwise, the provision of these infrastructures by the developers in the course of the provision of low income housing puts the units beyond the reach of the intended group.

2.3.3 Financing

The low-income housing market has particular unique characteristics, notably the lack of disposable income that would facilitate the purchase of decent housing. The market is thus

characterized by price ceilings which imply that costs must be carefully mitigated in order to achieve profits in development activity. Towards this end, Housing Finance has developed Ezesha mortgage scheme, a product which is expected to bridge this gap. Complete houses available through mortgage finance are well beyond the reach of the lower income groups, because they are unable to meet the deposit and income criteria set by conventional mortgage institutions. In this situation, the majority of urban poor households can only afford to build incrementally in stages, as and when financial resources become available. In this regard, mortgage lender Housing Finance (HF) has lowered the entry barrier for new borrowers with a house loan deal (Ezesha Mortgage) that removes the requirement for payment of deposit, stamp duty and legal fees. The company is targeting low to middle-income earners who can afford mortgage repayments, but to whom house loans remain out of reach due to high up-front costs demanded by lenders⁷. In this case, Housing Finance seem to understand the challenges associated with raising entry costs in home ownership during these hard economic times and that may be the reason why the company has come up with an innovative home ownership solution. Housing Finance is targeting borrowers who have the affordability to repay a home loan but do not have the deposit required. Despite the advantages presented by this product, it fails to clearly address the needs of the lower income since most of them do not have a reliable source of income.

According to CIVIS (2003), affordability of housing for low income households is a function of the relationship between poor households' available income and the cost to acquire land, build a

⁷ <http://www.housing.co.ke>

house and install basic services. Financial limitations of this market imply the need for available financing options. The use of off-plan sales model as is the norm in the middle and upper market segments would not be feasible in this market and developers would have to finance the entire construction or obtain costly debt financing towards this.

On the other hand, it's difficult to find documentation on income and where this is possible, information is often manipulated. Financing options are often limited due to the peculiar nature of the sector. In addition, instability in income combined with long maturity makes housing microfinance a very risky business for commercial banks. Tesfaye (2007) notes that the instability of income is a high risk as the borrower may default on future repayments due to lack of income at a later stage of the loan term. Security of title compounds this situation in Kenya as often the degree of confidence in the ownership rights of property are limited and there is weak ability to enforce these rights.

Studies specific to Kenya suggest that Kenya's outdated 1968 Building Code did not allow the inclusion of newer construction technology that is instrumental to the provision of low cost buildings but the new building regulations have relaxed this requirement paving way for new innovations which will bring down the cost of construction considerably. The building code requires contractors to adhere to what is now costly and time consuming building measures that are not in use in developed countries (Macoloo, 1994). Most suggested solutions for low income housing provision center on policy reform to improve the attractiveness of the sector as well as to engage government in direct supply of housing. However, more focus should be paid to the needs of private sector developers who have the capacity and knowledge to supply housing to the low income market, yet are constrained by market fundamentals and the operating environment,

thus reducing their profit taking opportunity (Hassanali, 2009). To understand the role of developers in housing development attention must be paid to the key housing components; land, building materials, finance and construction technologies (Macoloo, 1994).

There are five models of housing development for low income housing initiatives (World Bank, 2003):

1. Sites plus development plan and gradual implementation of services ó settlements are planned and surveyed, lots allocated and occupied, and infrastructure gradually implemented.
2. Sites and services ó mass production of serviced sites in large schemes for resettlement of urban squatters, usually in peripheral land in city outskirts and with basic starter housing units.
3. Comprehensive upgrading of existing settlements ó wide range of improvements involving different types of infrastructure according to predefined area plan; this is integrated upgrading but undertaken in one go, usually in a two year time frame.
4. Development of new housing in new settlement ó new infrastructure and housing units are built on empty land; or new housing units on available land in existing serviced areas.
5. Redevelopment of degraded existing structures ó agreement reached with building landlords for building renovation.

The Rwanda government for example has adopted the model of developing new housing settlements for her population. They have initiated the Imidugudu project. Imidugudu is an 80 household settlement that was set up in 2002, to accommodate refugees who had returned mainly from Burundi. They are grouped settlements modeled along the lines of Israel's Kibbutz. The

model is being replicated in the whole of Rwanda to accommodate her population decently (The East African, 5 July 2010).

2.3.4 Housing need in Kenya

The housing sector is significant in rapidly urbanizing regions, Kenya being one of them, exhibiting an urbanization rate of 4.2% annually according to CIA Factbook, 2013. Urbanization in Kenya is largely caused by rural-urban migration influenced by potential employment opportunities expected of urban centres as well as natural population growth.

CIVIS, (2003) explains that the rapid urbanization in Kenya is causing an enormous strain on already stressed urban infrastructure, housing stock and services. Otieno (2004) finds that this is made worse by the lack of affordable housing units which results in the growth of informal settlements, poor standards of construction, construction of un-authorized extensions in existing estates and increasing conflicts between tenants and landlords especially in low income settlements.

Nairobi occupies 8% of Kenya's land area but comprises a quarter of the country's urban population (Nabutola, 2004). The population density in Nairobi is 4,509 persons per square kilometer compared to 73 persons per square kilometer for the country as a whole and more than half of its population lives in informal settlements that occupy only five percent of the total urban land mass (Otieno, 2004). In addition to a shortage of affordable housing, a vast majority of urban dwellers cannot afford to own homes in Nairobi owing to high house prices and cost of loans.

Microfinance Institutions and NGOs

Realizing the housing need and the failures by the state and its agencies, NGOs and micro finance institutions have come in to fill the low income housing supply deficit. An example of this MFI is Jamii Bora Bank, a deposit taking Micro Finance Institution, provides a wide range of services to low income earners., Jamii Bora is currently engaged in a low cost housing development project for its members, providing housing microfinance loans to the families involved. (Jamii Bora Trust, 2006). Working together with the NGOs and MFIs are multi-lateral organisations such as Nairobi based Pan African Housing Finance Institution, Shelter Afrique which in 2012 extended \$500,000 loan to Makao Mashinani ltd, a Kenyan housing microfinance institution, in a pilot project geared towards raising the market supply of affordable houses for low income earners. The loan facility will be used by Makao Mashinani ltd to scale up social housing finance for low-income population living in slums and informal settlements in Kenya. Makao Mashinani ltd will lend to an estimated 2,000 low income earners wishing to construct low cost housing offering borrowers mortgage of between Ksh. 1,000,000 and Kshs. 5,000,000⁸. Habitat for Humanity Kenya and K-Rep Development Agency has also provided limited project-based housing assistance for low income households with less than 500 housing units. Other NGOs involved in policy making and developers assistance in this sector include: National Urban Forum (Kenya), African Ministerial Conference on Housing and Urban Development (AMCHUD) and UN Habitat, Pamoja Trust. The housing output by these NGOs though important does not have the requisite impact on the low income housing market thus there is need for more players from the private sector to join in.

⁸ www.ventures-africa.com

2.4 Private Sector Success in the Middle and Upper Market Segments

Sufficient, good quality and affordable housing in the right area is a key element of a sufficiently working economy where the private sector is a key component of the collaborative approach to housing supply proposed by the United Nations Centre for Human Settlement. Ball (1996) asserts that the private sector has the capacity to deliver housing in large scale and to a large segment of the community when it operates within an environment where possibility of charging customers and making a profit exists and further as Otiso (2003) puts it, in an environment where there is an absence of daunting obstacles and the government of the day is competent.

The middle and upper segments of the housing market have witnessed significant growth in post 2002 benefitting from strong economic growth, growth of the middle income market, innovations in the financial and mortgage markets and preference for property as a medium of investment.

Traditionally, property development has demanded massive capital investments necessitating the use of costly debt financing. More recently however, changes in market fundamentals have revolutionized the property development industry allowing for more players with much lower capital requirements. These are the advent of off-plan sales and the onset of new financial structures.

a) Off-plan Sales

Off-plan sales were introduced in Kenya in the mid 1990s but became significantly entrenched in the early years of the new millennium. This system of sale is based on marketing of properties prior to commencement of construction based on architectural designs and impressions. Purchasers then make interim payments towards the property during the construction period and thus purchaser funding became a key component of the developers finance structure.

This model of sale naturally assumes purchaser liquidity and does not support mortgage financing as the later could only be availed upon completion of the construction. The developers financial input in this model only constitute the land purchase, payment of initial costs such as design, approvals and marketing as well as a provision for any deficit during construction. Overall, this reduces capital contribution from developers and significantly improves return on investment (Ball, 1996). The most significant input for developers in this model is land whose prices have been rising steadily.

b) New Finance Structures

The second industry trend of new finance structures has been the joint venture developments which have allowed property developers to mitigate rising land costs. This is designed to overcome capital requirements associated with land purchase achieved through joint venture arrangements with landowners.

This structure involve a contribution by the landowner of his land at an agreed market value and contribution by the developer of the equity requirement for the project, the proportionate input forming the basis of a profit sharing structure for the two parties. When coupled with off-plan sales, the joint venture structure further reduces capital requirements by the developer thereby improving return on investment while allowing landowners to benefit from profit growth on the value of their land without any other capital contribution.

The off-plan sales and joint venture models jointly serve to significantly reduce property developers' reliance on debt financing. The subsequent lower demand for capital contribution has eased access into the property development industry but more importantly improve profit

opportunities and return on investment for developers thus motivating them to invest in housing even further (Ball, 1996; Otiso, 2003).

2.5 Urban Housing Theories and Approaches

A number of thoughts regarding urban housing have been developed during recent decades (1990 ó 2000), set within the market economy and socialist contexts (Mitullah, 2003):

2.5.1 The Demolitionist Approach.

Developed in the 1950s, this approach viewed informal settlements as parasitic, destroying the beauty and healthiness of cities. The response of planners to this was to demolish these structures to improve the aesthetics of the cities while diminishing the existing housing stock of the lower class. In Kenya, the Sessional Paper on housing of 1965 ratified demolition of slums, which became a consistent ugly feature in the housing policy of the independent state. By 1965 according to Mitullah (2003), Nairobi had several unplanned housing areas and the policy was used as a tool for bulldozing unplanned settlements; a move which led to the government knocking down more homes than it built without providing alternative housing for the displaced. The authorities later recognized that the residents of these settlements were in the city by right and the negative aspect of the demolitions weighed heavily on the government and it therefore no longer applied. Critically, Turner (1972) argued that the solution to slums was not to demolish the housing but to improve the environment: he argued that if governments could rid existing slums of unsanitary human waste, inadequate or polluted water, litter and filth, they need not worry about shanty dwellings because `squatters` often showed great organizational skill in their land management that they could be trusted to maintain the infrastructure that is provided. While

demolitions are an inevitable process in urban renewal, the demolitions alone cannot revitalize a neighborhood but only creates a humanitarian crisis and the postponement of a problem while the government runs away from its responsibility.

2.5.2 The Supportive Approach.

This approach viewed the solution to housing as a consensus between the state and the needs of the urban poor. The approach recommends an integration of state empowerment and the self-help obligation of the urban poor, with a view that housing was not just a shelter to live in but also a means for social mobility. However, the housing success depends largely on the collective efforts of the community with the state playing merely a supportive role in the provision of public utilities and initial funding. Mitullah (2003) finds that this approach relies heavily on political will from the state as well as institutional and structural support and thus, faced implementation difficulties in developing countries.

In Nairobi, we have seen the government undertake comprehensive upgrading of Kibera slums through the Kenya National Slum Upgrading Programme (KENSUP). Critics of this approach have questioned the sustainability of this model since it does not have an in built ownership concept. According to Turana (2010), previous efforts such as the Mathare 4A project and the Kibera Highrise project carried out by the government failed because the beneficiaries ended up being other people and not the intended slum dwellers.

This approach provides permanent housing which is highly effective in maintaining housing stability, as well as helps improve health outcomes of the beneficiaries. On the other hand, the approach creates an imperfect market where demand exceeds the supply of supportive housing.

While this can lead to an improved quality of life for the fortunate applicants, the unsuccessful remain in inadequate housing conditions.

2.5.3 The World Bank Approach.

The World Bank implemented the cost-recovery principle based on the view that investment in low-cost housing would accelerate economic development. Under this arrangement, developing countries would obtain loans from the World Bank, invest in low-income housing schemes, deliver the units to housing dwellers and convert occupiers to debtors of commercial banks, thus liquidating funds for reinvestment by the government. This was meant to strengthen the market mechanism and minimize the bottle necks of housing delivery. However, this approach fails to recognize that most of the low income groups do not have a consistent source of income to be in a position to service the subsequent loan. The approach is further criticized by Mitullah (2003) for an over focus on market mechanisms, paying little attention to issues of land tenure and infrastructure where he advocated the regularization of land tenure for creation of security and subsequent incentive to develop. In the Kenyan situation, this approach would tend to favor the middle income that may have the means to service a loan but cannot afford the terms of most mortgage products thus leaving the intended beneficiaries in the same vulnerable condition.

2.5.4 The Collaborative Approach.

This approach emphasized collaboration between the state, the market, non-governmental organizations and the community. It is a set-up that would enhance the capability of the community. Good governance and state support would focus on the well-being of low income communities, using housing as a means of social mobility. The difference from earlier

approaches was that it sought to merge the community with government interaction and support to obtain practical solutions in the community's initiative (Mitullah, 2003). Whereas Bantley (1996), Ong and Lenard (2002), Miraftab (2004), Adams et al., (2006) and Brown et al., (2006) have emphasized the benefits of PPPs, in contrast, Marava and Getimis (2002), Scott (2004), Bovaird (2004) and Tomlinson (2005) have argued that PPPs are another form of privatization and an avenue for governments to abdicate their responsibilities to the markets and the masses. However, a study by the UN-HABITAT (2006b) indicated that PPPs between the state and Civil Society Organizations (CBOs) have been the most successful in providing housing for the low income group and thus they provide the key to enabling housing among the urban poor.

2.6 The Role of the State in housing

Each of the housing theories earlier described in 2.3 emphasize on the role of the government in the provision of housing, either as a direct supplier or as a facilitator. The role of the state in low income housing is pivotal and national leaders have a legal and social contract to provide services in return for political support. Despite this, many states are unable to meet these needs because of administrative, financial, and institutional weakness coupled with poor planning and rapid population growth. Lack of sufficient funds due to competition from other productive sectors of the economy has been touted as one of the key reason for the poor housing conditions in urban cities. Often, as Macoloo (1994) puts it, only the vital and productive sectors are financed and for a long time, the definition of productive sectors has excluded housing provision, particularly for the low income households.

2.6.1 State Strategy and Incentives

Some of the dominant strategies for housing and service provision for Kenya's urban poor include slum upgrading and site and service schemes. However, the efficacy of these strategies has been limited by ambivalent state attitude to irregular settlements. Further, these strategies have failed because of a reliance on inappropriate building by-laws and infrastructural standards, and modern designs, construction technology, and conventional building materials that all make housing unaffordable to the poor, even after subsidies. Although there have been calls to the State to adopt more suitable alternatives, Otiso (2002) notes that few changes have taken place because policy makers view proposed modifications as being too old-fashioned and incongruent with their quest to modernize the country. Thus, as Macoloo (1994) puts it, the State initiatives in providing public housing have proven to be pathetically slow with many of the houses provided being economically and socially irrelevant, this further prompting the rise of informal settlements.

More recently, the State in RoK (1999) has recognized the acute deficit of housing in the lower end of the market and it has planned to improve the situation by encouraging supply, a move towards becoming facilitator by enabling policy formulation conducive to mobilize the private sector participation in low-income housing. Some recent initiatives according to RoK (2007) include the zero-rating of VAT on building materials used in the construction of 20 or more low-income housing units and the discussion of possible tax advantages and tax holidays for developers in the low-cost housing sector.

Even if Kenya's earlier policy as direct supplier of housing has given way to more pragmatic strategies of getting other actors involved, the housing situation remains dire. It is evident that there is a widening gap between policy formulation and the implementation process, and the status of low-income housing delivery is far beyond satisfactory. Okonkwo (1998) noted that poor past policy frameworks, uncontrollable urban population growth and current inaction by the public sector have been the key reasons for this. Key areas of challenge that relate to developing country initiatives include rapid urban population growth, the misuse of dwelling funds, the adverse effects of increasing rents for low income groups, the deficiency of the housing loan system and the increase in luxury houses rather than social houses (Yetgin and Lepkova, 2007).

However, the real challenge for the Kenyan Government is to create an enabling environment for investment and to remove the impediments that hamper private sector development. These range from functioning labour, capital, and input markets through to an efficient and effective administration process, with an emphasis on showing real progress, building on key successes in market where the private sector already has incentives to invest (UN HABITAT, 2003). Similar approaches have been successful in other countries where in recognizing their acute housing deficits, the States have made cognizant efforts towards becoming facilitators rather than hindrances to private sector real estate developers, this is done through joint consultative meetings and implementation of a range of incentives for investors (Hassanali, 2009). Since the state is duty bound to provide housing to its citizens, it should facilitate in the creation of an enabling environment for the private sector as well as collaborate with other players in the industry to directly provide low income housing.

Strengths and weaknesses of the state

Otiso (2003) finds out that the state has the potential to meet the needs of the urban poor since it has the financial, administrative and technical resources to undertake large-scale projects and also has the ability to influence other housing and service providers to achieve its objectives. On the other hand, the state is inflexible and has hierarchical administrative structure which is unable to respond to the unique needs of the urban poor and misallocation of resources due to corruption and nepotism.

2.7 The Role of the Private Sector

Private sector housing is defined by Golland (1996) as any production of housing which is not connected at all with the actions of the state, neither directly constructed by the state nor financially sponsored by the state and where the production is not expected to have a social element.

Ambrose and Barlow (1987) have argued that three factors are important in influencing the level of new house production. These are direct capital investment by the state for public housing, state support for production and consumption and changes in the profitability of house builders in the private sector. Mitullah (2003) further points out that the private sector can play an important role in housing provision, provided that the state offers sufficient and appropriate incentives to the sector thus motivating the private sectors' participation which remains the largest producer of housing units in the country. This according to Otiso (2003) is important given that the initiatives by the private sector are large-scale and deep in impact as compared to the government initiatives which may be large-scale but usually limited in impact.

According to Hancock (1998), the clear motivation that underlies the private sector is profit (or potential profitability) with profit-maximizing options being producing and selling more of the product; reducing the cost of production through lower raw material and wage costs (cost per unit or quantity) and finally, increasing the price of the product or service. The private sector is capable of providing living needs to large segments of the urban community if they operate within a competitive environment where they charge consumers and make a profit, obstacles such as technology are non-existent and the presence of competent governments with the capacity to enforce standards, contract fulfillment and service provision (Otiso, 2003). Ball (1996) suggests that the trigger of development activity is an analysis of market opportunities by developers who see demand for new housing, anticipate adequate return on investment, gear their resources towards purchase of land and housing production and then sell these housing units with a view to maximizing profits. Profitability in housing is advocated to be based on three variables: House prices, land prices and building costs, where:

$$\text{Profit} = \text{House Prices} - \{\text{Land Prices} + \text{Building Costs}\}.$$
⁹

Macoloo (1994) defines the key components of housing to be land, finance, building materials and construction technologies. In a survey of developers, Thalmann (2006) purports that few market developers actively monitor the market for business and profit opportunities but instead respond to market triggers, such as availability of land. As such, the supply of housing may not respond only to market signals and incentives but to the availability and cost of land.

⁹ Golland, A. (1996), Housing Supply, profit and housing production

2.8 Application of Appropriate Technology

In his report *Promoting the Use of Appropriate Building Materials in Shelter Provision in Kenya*, Syagga (1993) analyses the dissemination of alternative building materials with regards to the demand for low cost housing. Development of innovative, cost saving technologies was initiated during the 1970s, but little has changed in the actual practice of the construction sector. Conventional building materials, as concrete and quarry stones are still dominating the sector, providing insufficient alternatives for low income households. Locally produced building materials, such as stabilize soil blocks may have an abundant supply of raw materials, create more job opportunities, require less skills, capital and means of production, are more economically and environmentally sustainable and use smaller amounts of imported products.

In many developing countries, building material compose the main part of the total cost in residential housing construction projects. Reaching around 68% in Kenya, it is obviously a factor with great cost reduction potential. Field demonstrations and real life housing projects have proven certain designs to save upto 50% of the building material cost, including material acquisition and labour. Nonetheless, the dissemination of alternative, low cost building materials and methods has been very slow and partially restrained due to several reasons.

The beneficiaries of low cost housing are in general low income households with very limited economic conditions. The construction industry, like most other industries, is based on economic gain, making low profit activities unfavorable. The main constraint on the dissemination of appropriate building technologies, however, is and has been insufficient political support.

Subsequently, the development is inhibited by the lack of institutional services and limited social acceptance.

According to Namayi (2013), some governmental housing campaigns in Nairobi have made use of SSBs e.g. in Mathare and Kibera. The authorities have approved the constructions, provided machines for SSB production as well as suggested the construction methods. Quality controls have been carried out by the government. Many public buildings such as schools and dispensaries have been constructed with SSBs, but baked bricks are still used to a large extent. The accessibility of SSBs is not meeting the demand, but the technique along with other alternative building materials, will be more established when manufacturing in the private sector increase, along with continued engagement from non-profit organizations. Considering the great cost reducing possibilities that alternative building materials provide, the slow dissemination and relatively limited utilization may appear unreasonable. The main reasons described above show how a technology can exist, even for a very long time without actually getting recognized. It is obvious that the properties and qualities of a new technology itself are not enough for wide establishment; many other conditions are required.

2.8.1 Inadequate building regulations

An evaluation of the Kenyan building code can be found in a conference paper published by the Institution of Engineers of Kenya (IEK) (2011). The construction regulations have to a large extent been based on the British Building Code, including irrelevant regards to the environment such as snow. The climatic differences have caused many structures to collapse due to

unexpected material performance. The building code includes mostly conventional materials and technologies such as concrete, sawn timber, clay tiles and bricks. A few recent updates have introduced new technologies e.g. stabilized soil blocks, but use of other methods has in general been discouraged.

As a result of the inadequate building regulations, Kenyan houses are to a large extent in poor structural shape. Both traditional and new materials and techniques have been neglected, even though they would remarkably improve the conditions to create new residential buildings. Local culture and experience, regional climate natural resources, available tools, and labour are all significant factors that need to be considered and integrated in the planning regulations.

Efforts to revise the building code emerged during the 1990s. updates such as Code 95 which introduced modifications of the old codes, resulted in large reductions in building costs and an increased activity in residential construction. According to the Construction Business Review (2012), The British Standards are currently being replaced by Eurocode in order to achieve the Millennium Development Goal No. 7 (Ensure environmental sustainability), further revision and adaption to Kenyan conditions are still needed. IEK recommends the building code review to focus on the following;

- Increased use of local materials and technologies
- Accommodate new alternative technologies
- Compatibility between design and technology
- Various local conditions to influence the choice of design and technology

2.9 Policy, Institutional and Legislative Framework

2.9.1 Policy and Institutional Framework

During the colonial period, the people of Kenya witnessed a large scale of Government sanctioned spatial segregation based on race. This was reinforced by planning laws and zoning regulations. The colonial Government had a policy of controlling African urban population to ensure African population was low and that the whites were free from contracting infectious diseases. During this period, human settlements were stratified along racial groups, ethnicity and income status (Køakumu and Olima, 2006).

According to Køakumu and Olima (2006), the colonial Government discouraged provision of large scale public housing in order to curtail excessive influx of Africans to cities. To date, there still exists some level of racial tri-partition which has transformed into socio-spatial distinctions of formal and informal settlements in Nairobi, a result of dynamics of colonial racial housing policy.

Origins of squatting and informal settlements in Nairobi can be traced back to 1902 when European settlers arrived in Kenya, acquired large tracts of land and displaced Africans who were turned into laborers for settler farms and emerging urban centers. They are thus a consequence of colonial capitalist development imposed by British policies of alienation.

In the colonial period, the main housing policy was to provide housing for the European and Asian residents in urban areas. However, in 1919 after the World War I, there was a shift in policy where there were attempts at housing Africans working in urban areas. This resulted in the

1921 'Official African Location' of Pumwani, which can be classified as the first site and service scheme. Subsequently there was a policy shift and proposals were made to house African families in the early 1930s, resulting in construction of estates like Ziwani, Bahati and Kaloleni. The first housing ordinance was enacted in 1943, after a commission was set to look into the housing situation for the Africans. The city council was to provide housing for the low-income groups, who were mainly Africans and a recommendation was made to establish a Central Housing Board and a special fund to make loans available to local authorities. It also urged that Africans be allowed to build villages in towns even with temporary materials. These efforts in housing Africans led to the creation of Central Housing Board in 1948. In 1950s there was no holistic approach to housing policy. The Policy then advocated for slum clearance and encouraged mobilization of resources for housing development through co-operative and aided self help efforts.

Between 1950s and early 1960s due to pressure by war veterans and nationalists, the colonial government was compelled to consider welfare needs of African urban residents and recognize them as permanent urban residents. New development plans in Kenya in 1950s were therefore drawn aimed at improving conditions for the African population. The state encouraged African-owned tenant purchase schemes and promoted home ownership for growing or educated stable African middle class. The Policy was to adopt higher wages, market rents and permanent housing across British colonies. Between 1902 and 1963, the housing policy entailed provision of limited public housing for few native laborers (UN-Habitat, 2006). The laborers earned meager incomes being forced to seek for housing within outskirts and not affording adequate housing.

2.9.2 Post-Colonial Period

In the immediate post-colonial period, the Kenya Government invited World Bank experts to review the housing conditions in the country. This resulted in the Bloomberg and Abrams report, which led to the first housing policy in Sessional Paper No.5 of 1966/67.

From 1960s to 1970s, Government adopted public housing provision initiatives ranging from providing public sector employees in armed services, police, hospitals and university. The sites and services approach was also adopted as well as construction of public housing estates for lease or sale to low income urban residents. The Government policy also supported slum clearance policies. The above policies never met the need of urban masses; rather, they only met the need of the middle class, and very few low income earners.

There was a paradigm shift in the 1970s which led to adoption of basic needs theory which saw the introduction of Site and Service Schemes, Self-help projects, and core housing among others. In the 1980s, housing policy shifted in favor and toleration of informal Settlements with a relaxation of by-laws based on the Neo-Liberal Theory. The 1990s saw the creation of enabling environments and state withdrawal in direct provision of housing. Borrowing from international policies, the Kenya government acknowledged the role of the private sector in shelter delivery and engaged in encouragement of privatization based on Neo-Liberal analysis. In the 2000s there was the propagation of Public-Private Partnerships based on Sustainable Livelihood Theory. This was further enhanced by the Millennium Development Goals (MDGs) as an urban and development strategy. This neo-liberal period has seen initiatives on settlement regularization

and Slum Upgrading, as well as provision of social housing such as Sustainable Neighbourhood Programme at Mavoko in Athi River, Machakos County.

Following the enactment of the Constitution of Kenya 2010, the realization of the right to housing, as indeed that of other rights has an institutional home in a number of agencies. Currently, the Ministry of Housing retains the responsibility for policy development as well as direction on implementation. Actual planning of the housing infrastructure is led by the Ministry of Land & Department of Physical Planning. Local authorities are also involved in planning and overseeing legal arrangements for housing construction in city council and local authority counties. The Department is closely assisted by the Housing and Building Research Institute (HABRI) which conducts research on housing planning and design and related issues.

The Ministry of Housing also oversees the work of the National Housing Corporation (NHC) which was established under the Housing Act 1953. It is quite clear that its establishment, and therefore, its functions are not designed to address the housing needs of the neediest. Of late, reports of massive corruption at NHC have further dented its reputation. A report, *Distortion in House Allocation: Report of Allocation Process at the National Housing Corporation* prepared by the Board Audit Committee makes for painful and compelling reading as it reveals massive cases of graft at NHC. Moreover with the coming into effect of the devolved system of government the role of NHC must be reviewed since the provision of housing is essentially a function of the county governments under the new system (Transition to Devolved Government Act, 2012). If the right to adequate housing is to be effectively realized, it is obvious that new, more devolved, accountable and transparent institutions have to be established that will not only ensure meaningful public participation, but also improve efficient use of resources.

Already there are new institutions under the constitution that have a role in the implementation of the realization of the right to housing. The Kenya National Commission on Human Rights, for example, retains the responsibility of advising and monitoring the state's progress on the realization of all rights. The National Gender and Equality Commission has also been mandated to advise on the standards in the realization of economic, social and cultural rights of vulnerable and marginalized groups. Similarly, the National Cohesion and Integration Commission can play a role in advising the government on issues of equality and nondiscrimination as they relate to the right to housing.

2.9.3 Building Code

Government policy, on the one hand, has been useful in protecting urban dwellers from dangerous constructions. However, more detrimental has been that imposition of these building standards through Kenya's Building Code has effectively made illegal the most common form of home construction i.e. progressive building and construction methods (Macoloo, 1994).

Kenya's Building Code has been based on the historical English system for a long time relying predominantly on the use of uneconomic imported materials that meet European-design standards. This English based code did not consider the local reality nor did it allow the adaptation to modern more effective building materials. This code devised in 1968 insisted that a house must be built out of stone and consist at least two bedrooms, each measuring a minimum of seven square metres with a separate cooking area thus, the minimum acceptable house being well beyond the reach of the poor and many middle income families (Macoloo, 1994). The implementation of this Building Code have meant that the type of construction that could be

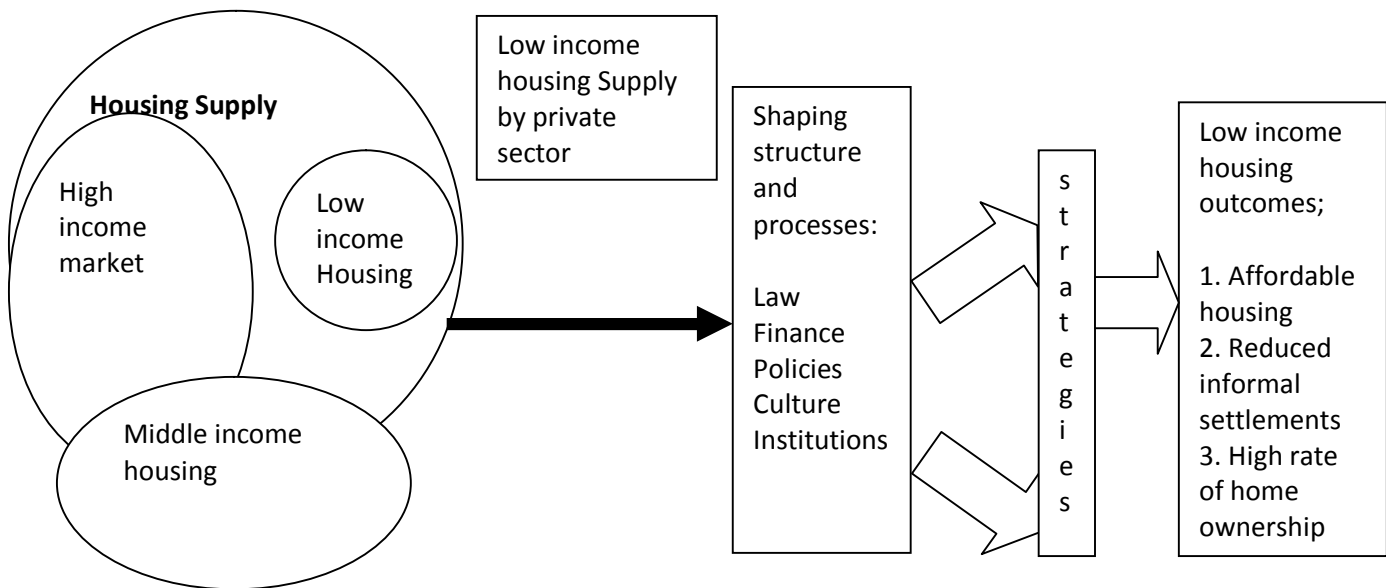
undertaken is limited to the traditional brick and mortar disallowing the modern building options that are cheaper and faster to construct.

The new Building and Planning Regulations of 2009 enacted to replace the obsolete Building Code is expected to correct these setbacks and usher in a revolution in the housing sector.

2.9.4 The Right to Adequate Housing under Kenyan Law

Following the promulgation of a Kenya Constitution 2010, the right to housing is now guaranteed under the constitution. Section 43(1)(b) of the Constitution of Kenya provides that every person has the right to "accessible and adequate housing and a reasonable standard of sanitation". This means that the state has an obligation to ensure that the low income group is adequately housed and that any challenge that may exist in the provision of low income housing is addressed to ensure the realization of this right.

2.10 Conceptual framework



2.8 Conclusion

Studies on low income housing in Kenya have revolved primarily around macroeconomic policy and housing microfinance for purchasers. Explaining housing development and production merely by reference to macroeconomic variables may not be conclusive as there are broader operational factors that need to be transposed into the housing context, for example; Government housing, land and planning policies pursued in any country will determine the most appropriate models of housing productions involving price and cost variables. Government decision making, either progressive or non progressive, is likely to impact the relationship between private sector housing provision and the macro-economy. Therefore, what motivates private housing production is a mixture of demographic, economic and political factors (Golland, 1996). In Kenya, the key motivating factors are not known hence this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines how the research study is to be conducted. It includes the research design adopted, the target population, data collection and analysis of the data.

3.2 Research Design

The research design is the conceptual structure within which research is conducted. It consists of the blueprint for the collection, measurement and analysis of data. As such, the design includes an outline of the study's framework, availability of various data, and observations i.e. the exact nature of the research work in a systematic manner (Kothari, 2004: 2).

This research study employed the case study and literature data analysis design and thus it was primarily qualitative and employed descriptive research techniques. This technique uses description as a tool to organize data into patterns that emerge during analysis. This is because it is used to identify hypothetical constructs and it can acquire a lot of information through description. The design is adopted because it allows collection of large amounts of data from the target population as compared to other methods. The study will be conducted in Nairobi city since the target population is based in the area.

3.3 Target Population

The target population for this research study includes private property developers, UN Habitat as an institution, and government agencies as institutional respondents (National Housing Corporation and Kenya Slum Upgrading Programme where the directors will be the respondents) that are involved in actual development of low income houses or have facilitated such

development. The need to include UN Habitat is the fact that it is highly involved in low income housing especially in slums and squatter settlements. According to the membership of the Kenya Property Developers Association (KPDA), there are 71 institutions (www.kpda.or.ke) that carry out property development in the year 2013. These 71 institutions are all based in Nairobi and constitute the target study population.

3.4 Sampling

Using the hypergeometric function for small population, the appropriate sample size was determined to be 17. The sampled institutional respondents from UN Habitat, Kensup and NHC were conveniently sampled due to ease of access. Developers on the other hand were randomly sampled from a target population of 71 practicing in Nairobi. The sampling frame for this research is all the organizations listed in the Kenya Property Developers Association (www.kpda.or.ke) website.

Sample size formula for this study was;

$$n = Nz^2pq / [E^2 (N-1) + z^2pq] \quad \text{where } n = \text{sample size}$$

N= population size

Z= standard normal deviate (1.96)

P= % of target population (50%)

Q= 1-p

E= precision level (0.2)

$$n = 71 \times 1.96^2 \times 0.5 \times 0.5 / [0.2^2(71-1) + 1.96^2(0.5 \times 0.5)]$$

$$= 68.1884 / 3.9604$$

$$= 17.22 = 17 \text{ respondents}$$

3.5 Data Collection

Given the sample size, a survey method was found to be best in order to obtain a representative response. The survey instrument of collecting primary data used for this study is a structured questionnaire because they do not allow the respondents to deviate from the issue being researched. The questions were designed to elicit data in accordance with the research questions. The researcher visited their offices to drop questionnaires to be filled in for collection later while others were sent by e-mail. The respondents filled in the questionnaires individually as they were well designed for self-administration.

3.6 Data Analysis

The data collected was edited for accuracy, consistency and completeness. The data was then to be coded and cross tabulated to enable the responses be statistically analyzed. Descriptive statistics is to be used to analyze the data by way of percentages, weighted mean and standard deviation. The data to be collected is largely on a scale which is of the ordinal level.

Data analysis is to be analyzed using Microsoft excel. The questionnaires consist of closed questions from which frequency tables will be drawn and from these, the data will be presented in pie charts for analysis of the study objectives.

CHAPTER FOUR

RESEARCH FINDINGS AND ANALYSIS

4.1 Introduction

This chapter gives an outline of the research findings of the various responses gathered from the questionnaires. Due to the time limit, the questionnaires were distributed via e-mail. Out of the 17 questionnaires distributed, nine were filled out and returned to the researcher representing a 52% response rate.

This chapter discusses findings on:

- I. Housing development models for low income housing and
- II. The challenges encountered in low income house development

4.2 Low income housing development model

The respondents were asked to choose from among various descriptive statements of low income housing development models that have been adopted by their different organizations. The respondents had the option of choosing more than one statement. The general descriptive statements have been coded as they describe a specific model. Statements coded 'A' represent the sites plus development plan and gradual implementation of services model. Statements coded 'B' represents the sites and services model. Statements coded 'C' represents the comprehensive upgrading of existing settlements. Statement coded 'D' represents the development of new

housing in new settlement model. Statements coded E represents the redevelopment of degraded existing structures model.

Site of project and targeted households are located in peripheral land at city outskirts and new infrastructure and housing units are built on empty land models had the highest number of respondents agreeing to, representing 88.8% and 77.7% respectively.

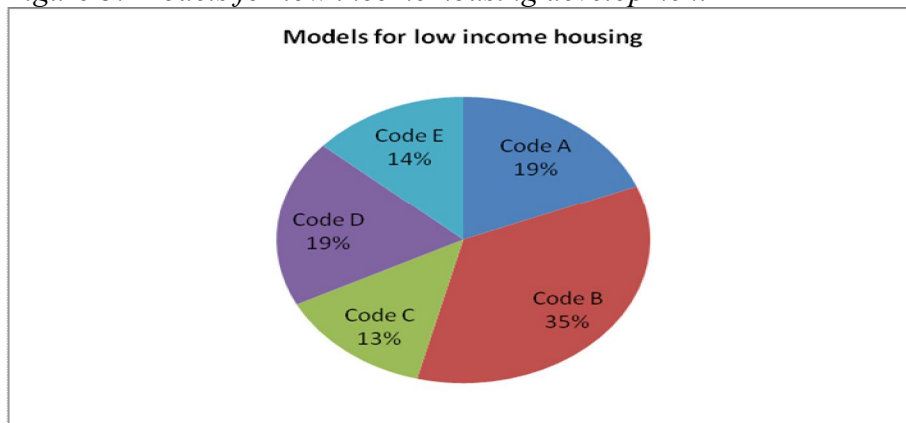
A summary of the findings is as shown in table 2 below:

Table 2; Housing Development Model

Description Statement	Code	F	%
Settlements are planned and surveyed	A	2	22.2
Plots are allocated to members and occupied	A	0	0
Infrastructure is gradually implemented on the plots	A	5	55.5
Site of project and targeted households are located in peripheral land at city outskirts	B	8	88.8
Basic starter housing units are constructed	B	5	55.5
Comprehensive upgrading of existing settlements	C	1	11.1
Improvements involving different types of infrastructure according to predefined area plan	C	4	44.4
New infrastructure and housing units are built on empty land	D	7	77.7
Redevelopment of degraded existing structures	E	3	33.3
Agreement reached with tenant occupier and landlord to upgrade existing structures	E	2	22.2

Source: Author, 2013

Figure 3: Models for low income housing development



Source: *Author 2013*

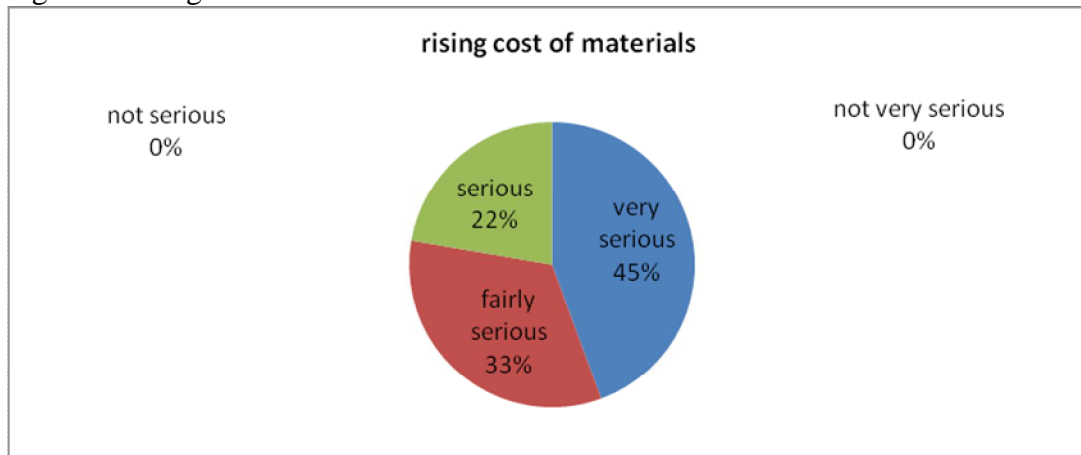
Therefore the sites and services model is most preferred (35%) with the characteristic that it is located in peripheral land in city outskirts. This is as a result of low prices of land in the city outskirts as compared to the inner city estates where land prices are steep. These findings conform to the literature on the model used for low income housing where the sites and services scheme was identified by the private developers and the World Bank as the most suitable. Also the development of new housing in new settlement model is preferred (19%) with the characteristic of new infrastructure and housing units being built on empty land. It's worth noting that comprehensive upgrading of existing settlements model is a preserve of a few institutions (11.1%). This may be as a result of complex procedures involving the inhabitants of the settlements, high costs of development and mostly the ownership of land that the settlements stand on.

4.3 The challenges encountered in low income house development

The respondents were given a set of challenges encountered while venturing into the low income market and asked to rate them on a 5-point scale where 1 ó 1.7 = Very serious; 1.8 ó 2.5 = Fairly serious; 2.6 ó 3.2 = Serious; 3.3 ó 4.1 = Not serious; 4.2 -5.0 = Not very serious.

The most serious challenge has been the rising costs of construction materials which most respondents agreed with a mean of 1.4 and Standard Deviation of 0.14. 45% of the respondents believe that the challenge posed by the spiraling prices of construction materials is very serious to the development of low income housing. This has hindered cheaper and affordable housing to become a reality for the low income earners. It was followed closely by the scarcity of land with infrastructure with a mean of 1.7 and a standard deviation of 0.11 and the complex land acquisition process which posted a mean of 1.7 and a standard deviation of 0.12.

Figure 4: rising cost of construction materials.



Source: Author, 2013

A summary of the findings is as shown in table 4.2 below:

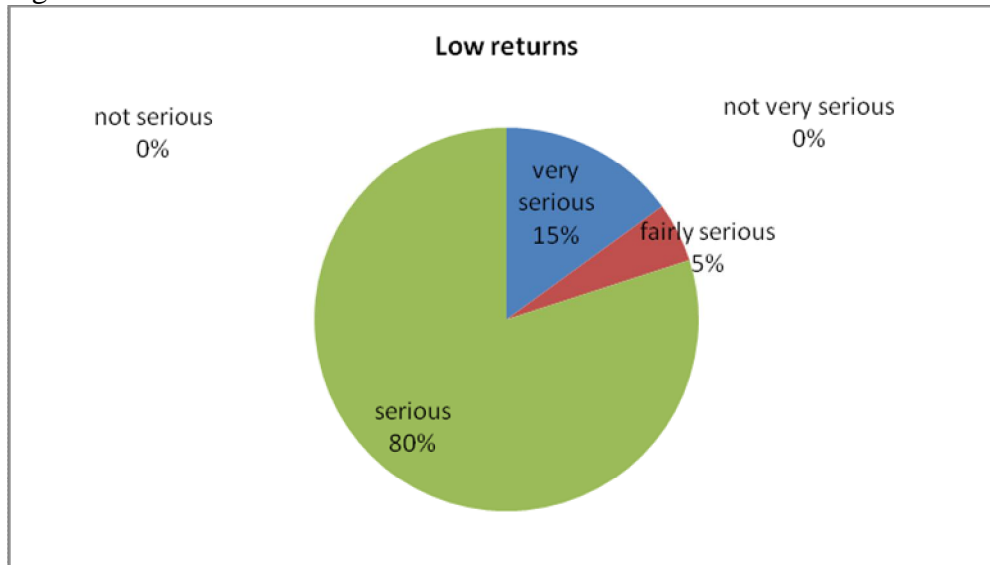
Table 3 Challenges encountered.

Challenge	Mean	Standard Deviation
Rising cost of construction materials	1.4	0.14
Scarcity of land with infrastructure	1.7	0.11
Complex land acquisition and building plan approval process	1.7	0.12
Rising cost of land	1.7	0.22
High interest on capital finance	2.1	0.09
Low return on investment	2.9	0.16

Source: Author, 2013

Low return on investment

Figure 5: Low returns



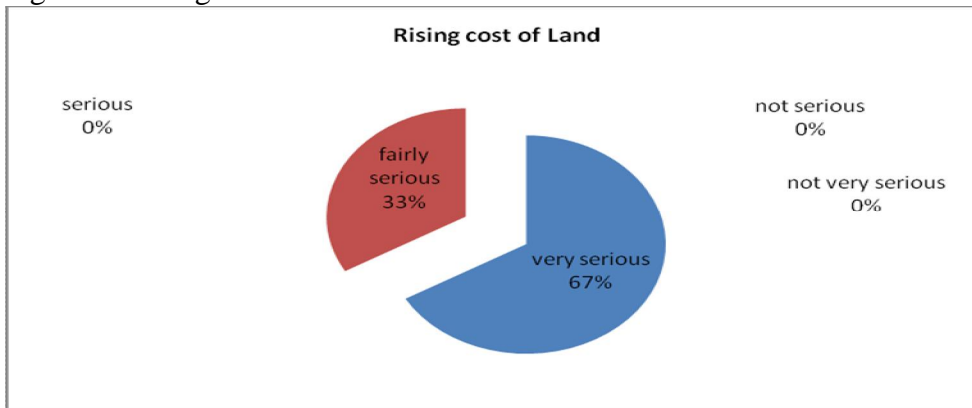
Source, Author, 2013

Findings on low return on investment challenge indicated that the challenge was serious. While the other challenges were rated very serious, this challenge came out as the least of the worries

for the respondents as profit making is so difficult when low cost housing and formal sector institutions coincide. Formal housing delivery systems rarely reach low and non-income groups. This means that either the returns are fairly inadequate or their involvement in low income housing is not necessary to maximize their returns from the venture.

Rising cost of Land

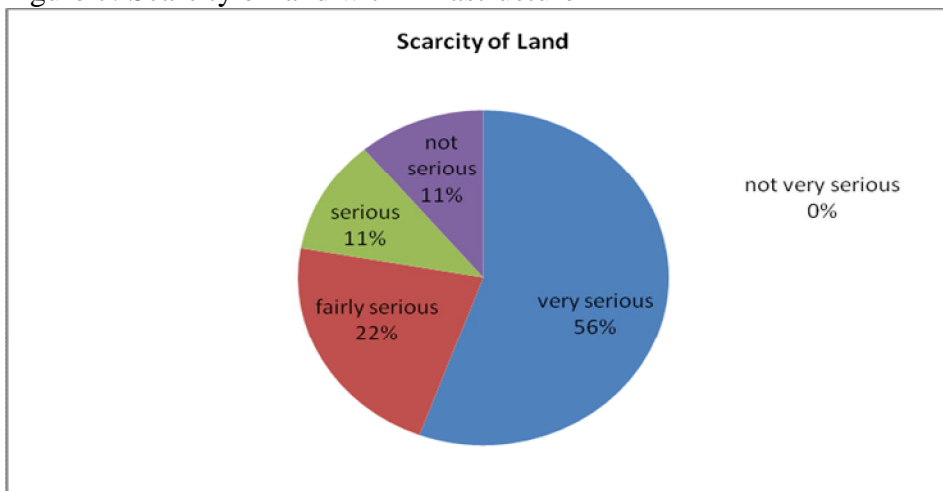
Figure 6: Rising cost of land



Source: Author, 2013

Scarcity of land with infrastructure

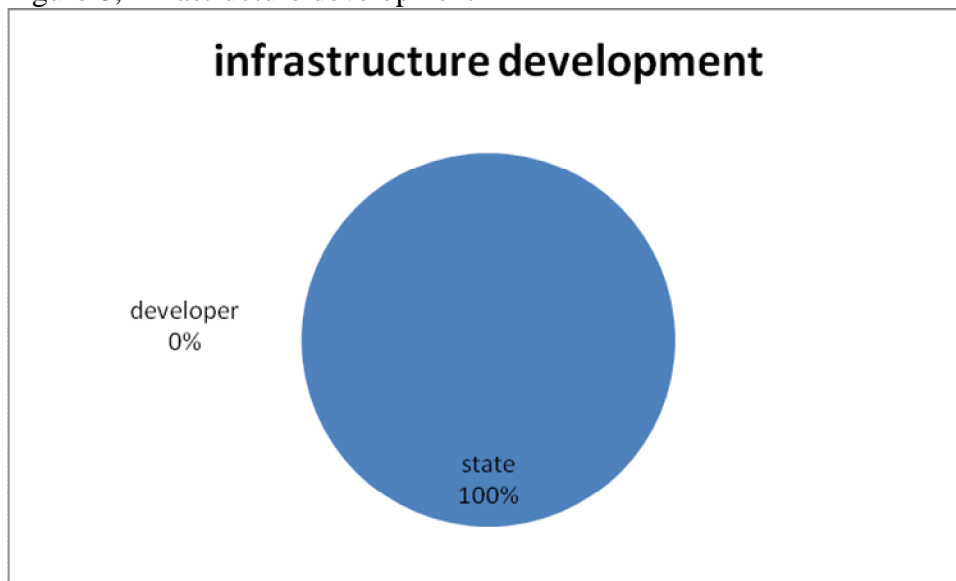
Figure 7: Scarcity of land with infrastructure



Source: Author, 2013

Scarcity of land with infrastructure, rising cost of land and complex land acquisition process were all rated very serious challenges with 56%, 67% and 67% respectively of the respondents as represented by figure 4, 5 and 6. These three challenges are all connected to land and thus making land to be a very serious challenge. High land costs are therefore an obstacle to developing and securing affordable housing for lower income families. The rising cost of land results are reflected in the Hassconsult findings for 2012 that the cost of land in Nairobi rose drastically. For instance, the report indicates that an acre of land in Upperhill Nairobi jumped from kshs 200 million to about kshs 350 million on average appreciating by 75%. This rising cost of land explains why 88.8% of the respondents from table 2 above prefer the model where sites of project and targeted households are located in peripheral land at city outskirts (sites and services schemes). This model enables the developers to evade the challenge of high cost of land as this model ensures that the prices of such land is fairly affordable and hence boosting accessibility while lowering the cost of the development.

Figure 8; infrastructure development

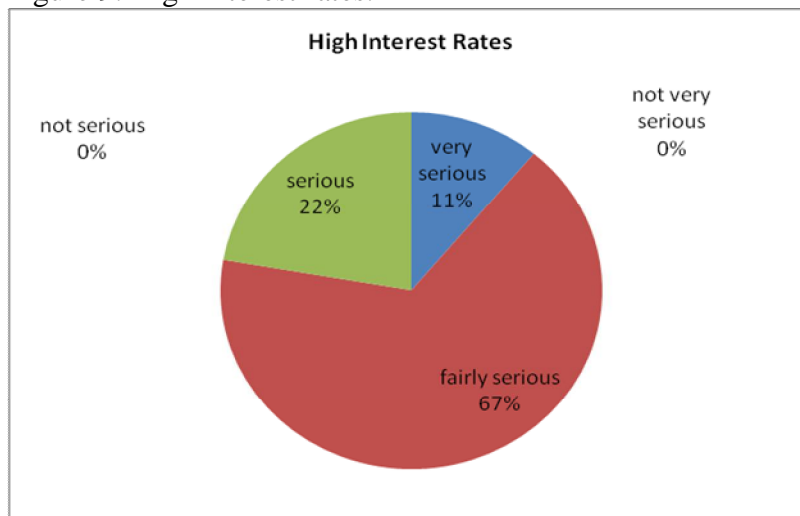


Source; Author, 2013

Figure 7 indicates that 56% of the respondents agree that the situation on land with infrastructure is very serious which means that most land for housing development is un-serviced. This creates a challenge for low income housing as servicing the land and subsequent housing development ends up with high prices for the houses which are out of reach for the targeted low income earners. This challenge therefore explains why 77.7% of the respondents (from figure 2 above) prefer the model where new infrastructure and housing units are be built on empty land given that the state provides the requisite infrastructure while 55.5% of the respondents prefer a model where infrastructure is gradually implemented on the plots.

High interest rates

Figure 9: High interest rates.



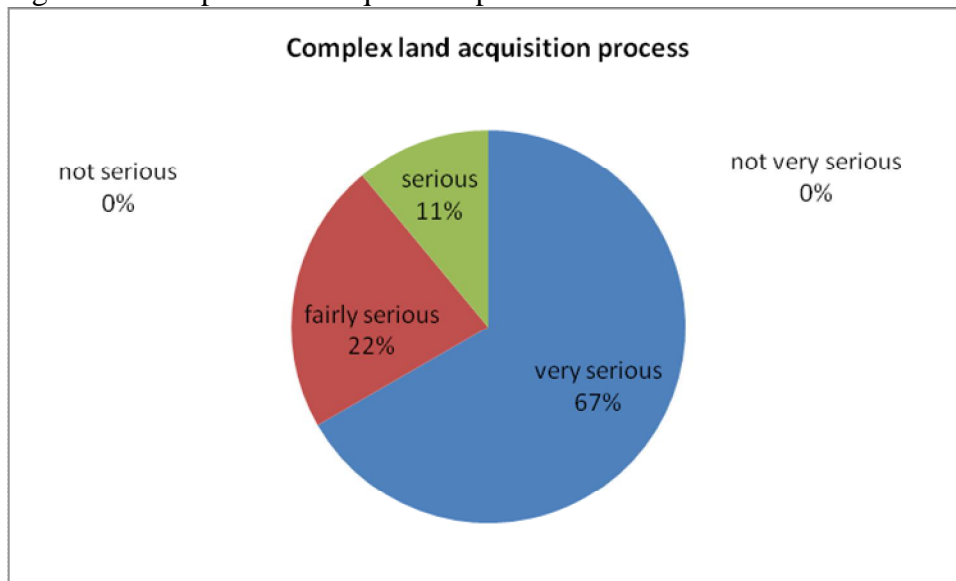
Source: Author, 2013

The respondents' observation that the interest rate situation to be fairly serious means that the mortgage rates in Kenya are comparatively high. This finding is in tandem with the Central Bank of Kenya findings that the high interest rates impacted negatively on the mortgage market in 2012 with non-performing loans increasing by 91.7%. According to the report, Kenya has a total of 19,177 mortgage accounts which is too low for a population of forty million reflecting

its undesirability and a preserve of a few. This high interest rate makes the mortgage market inaccessible to many slowing its uptake and adversely affecting low income housing.

Complex land acquisition and building plan approval process

Figure 10: complex land acquisition process



Source: Author, 2013

67% of the respondents believe that land acquisition process is complex and pose a very serious challenge to the developers in their efforts to provide low income house. This is clearly reflected by the low approval of 11.1% (from table 2) for the comprehensive upgrading of existing settlements model of low income housing which involves high levels of consultation and processes with the state and the inhabitants of the settlements to release the land for upgrading.

These challenges together account for the low supply of low income housing, low rates of home ownership and increased informal settlements as it becomes very difficult to develop housing which are affordable amidst all these challenges.

Conclusion

The rising cost of construction materials was identified as the worst challenge to the development of low income housing followed by the rising cost of land. The study further revealed the site and service scheme as the most favored model for low income housing with 35% of the respondents approving the model. 19% of the respondents favored the sites plus gradual implementation of services model.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This research study hoped to achieve the objectives of identifying the challenges faced by housing developers in the low income market, the housing models that have been adopted in Kenya and the driving motivation behind existing players in the market.

From the discussion of the research findings these objectives have been achieved. This chapter will attempt to draw conclusions and make recommendations on the findings.

5.2 Conclusions

The sites and services scheme was identified as the model highly embraced by the developers to provide low income housing. Development of new houses in new settlement model was highly favored as an alternative model for providing low income housing especially on the outskirts of the city. Therefore, all developers intending to provide low income housing should embrace the site and service model to ensure that they reach their intended group of consumers.

The rising cost of construction materials was identified as the most serious challenge to the provision of low income housing followed by availability of suitable land with infrastructure at affordable price in the urban areas. The implication has been that the prices of houses have increased significantly thus serving the high end market and neglecting low income housing.

Thus, developers should move away from the traditional building materials and techniques and embrace alternative building technologies and materials to ensure that the cost of their products are attractive to low and lower-middle income earners.

Cost of finance: the cost of financing housing development, both long and short term has been increasing at a very high rate which in turn affects the price of housing development. The cost of borrowing long term mortgage loans has also gone too high for the low and middle income earners due to their high risk of default. The government should therefore explore means of financing low income housing as well as being direct producers of these houses through its departments and corporations to house its staff.

5.3 Recommendations

1. Use of appropriate technology to drive supply of housing stocks in a sustainable manner.
For home builders, cost-effective building materials may prove a relief. The mazeras stone tiles, for instance, though have been in use at the coast have become popular wall and floor finish due to their relative affordability, high aesthetics, strength and minimal maintenance costs.
2. Develop a framework for public private partnerships between government agencies and the private sector mainly focusing on affordable housing for the low income market. The government is to establish a fund for low income housing where developers can access credit at favorable rates in return of developing low cost housing.
3. High land cost is an obstacle to low income housing. One way to address this issue would be to purchase a house without the land and thus a community land trust is one

mechanism that would allow this arrangement as the rising cost of land is prohibitive to many.

4. A law should be enacted that compels all employers to house a particular percentage of its workforce as opposed to just offering a house allowance. This would go a long way in increasing our housing stock.
5. Affordable housing is a major problem here in Kenya. Informal settlements and slums have continued to grow and a large percentage of the urban population lives here. The overall demand for housing according to UN Habitat is 150,000 housing units as compared to 35,000 housing units being delivered in the market. The supply shortage has left private developers focusing on highest return market segments which are the upper income class. It has been cited that the housing problem cannot be solved starting at the bottom because the poor will still be overshadowed. Houses meant for the lower end could still be snapped up by individuals in the higher income class thereby distorting prices and displacing the target market. The solution would be for the government and socially motivated entrepreneurs to offer homes for the bottom end of the market while commercial players and maximum profit driven entrepreneurs take care of the upper income segment. This is because the government is not profit oriented and has no reasons to shy away from low income housing citing low return on investments.

5.4 Limitations of the study

- ✓ The study involved the collection of primary data. There was a low response rate that is related to the collection of primary data. Some of the respondents did not fill and return the questionnaire.

- ✓ There lacked a credible listing which is comprehensive and up to date of property developers whose focus is the low income housing market.

Areas of further studies

This area for low income housing is vast and requires special consideration especially in the Kenyan context where housing supply deficit is very high. Area for further research recommended is therefore:

- I. The microfinance model of promoting low income housing; its strength, weaknesses and sustainability
- II. The factors behind the low uptake of alternative building technologies.
- III. The factors influencing the developers to have high regard for traditional methods and materials of construction.

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Questionnaire

I am John Kamau a student at the University of Nairobi from the School of Real Estate and Construction Management taking a course in Post-Graduate Diploma in Housing Administration. As part of this course, am undertaking a research paper on _____ and your help in filling this questionnaire will take me closer to completing my research paper.

(Tick where appropriate)

1. What is the nature of registration of your organization?
 - i. Private Company
 - ii. NGO
 - iii. Government Agency
 - iv. United Nations Agency

2. What is the number of employees in your organization?
 - i. Less than 20
 - ii. Btw 20-100
 - iii. Over 100

3. What number of housing units have your organization produced since inception?
 - i. Btw 1-500
 - ii. Btw 501-1,000
 - iii. Above 1001

4. What kind of models have your organization adopted to tackle low income housing?

Model Description	Tick where appropriate
Settlements are planned and surveyed	
Plots are allocated to members and occupied	
Infrastructure is gradually implemented on the plots	
Site of project and targeted households are located in peripheral land at city outskirts	
Basic starter housing units are constructed	
Comprehensive upgrading of existing settlements	
Improvements involving different types of	

infrastructure according to predefined area plan	
New infrastructure and housing units are built on empty land	
Redevelopment of degraded existing structures	
Agreement reached with tenant occupier and landlord to upgrade existing structures	

5. Rate the following challenges encountered while venturing into the low income housing?

Rate using the scale **1.0-1.7= very serious**

1.8-2.5= fairly serious

2.6-3.2= serious

3.3-4.1= not serious

4.2-5.0=not very serious

Challenge	Rating
Low return on investment	
Rising cost of land	
Rising cost of construction materials	
Scarcity of land with infrastructure	
High interest on capital finance	
Complex land acquisition and building plan approval process	

6. For low income housing, which party should ensure that the land for low income housing has the relevant services and infrastructure?

The state The developer

7. Rate the following factors to the extent they have affected your organization while venturing into the low income housing?

Rate using the scale **1.0-1.7= very serious**

1.8-2.5= fairly serious

2.6-3.2= serious

3.3-4.1= not serious

4.2-5.0=not very serious

Factor	Rating
Land	
Cheap land	
Expensive land	
Availability of land	
Growth of new areas	
Finance	
Cost of debt financing	
Capital requirements	
Building	
Cost of construction	
Availability of materials	
New building technologies	
Motivation	
Maximum profit motive	
Social need motive	

Thank you for taking your time to respond and availing the information. It's of much help.
Thank you again.