



UNIVERSITY OF NAIROBI

SCHOOL OF THE BUILT ENVIRONMENT
DEPARTMENT OF URBAN AND REGIONAL PLANNING

A FRAMEWORK FOR REDEVELOPMENT OF INFORMAL
SETTLEMENTS:

A CASE STUDY OF SILANGA, KIBERA

BY

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Thesis Submitted in Partial Fulfillment for the Requirements of Master of
Arts in Planning Degree of the University of Nairobi

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DEDICATION

This work is dedicated to the mother of my two beautiful daughters and the only better half of mine, Cellestine. You have been a big encouragement to me during my study period, God bless you abundantly!!

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My first thanks goes to the almighty God for giving me life and strength to pursue my studies, I am indebted to YOU the ALMIGHTY. Secondly I want to acknowledge University of Nairobi through the Department of Urban and Regional Planning (DURP) for the full scholarship they awarded me to pursue the course. Thirdly, I must express my very special thanks to both Dr. Samwel Obiero and Mr. A. Munyua Mwaura of the Department of Urban and Regional Planning for the very patient guidance that saw me through this work. I also thank my research assistant, Mr. Ogallo and all the respondents who voluntarily shared with me vital information on the success of this study. Finally to my dear wife Cellestine, my two daughters Mariet and Maryanne, your support cannot be matched. I want to share with you all, the successes associated with this piece of work. All mistakes, by omission or commission, I take full responsibility.

ABSTRACT

Kenya like many Developing countries face high rate of urbanization with consequential effect of rapid mushrooming of low in-come neighbourhoods, which are many cases are not provided with the basic infrastructure and services. The problem of the study was that the low neighbourhood redevelopment strategies by the government have been inadequate in addressing the housing conditions of the low in-come earners and the urban poor. The study sought to examine the broad framework for sustainable redevelopment of low in-come urban residential neighbourhoods in Kenya, with a case study of Silanga village, Kibera. This was done by employing both first and second-degree methods of data collection, which were then, analyzed using descriptive; content and statistical analyses and later on presented in form of text, photograph, and frequency tables. The study found out that Kenya's strategies towards redevelopment of low in-come neighbourhoods have not in many instances, achieved the goal of providing decent housing to the urban poor. Noted failures include: lack of involvement of beneficiaries during policy formulation stage; demolition and evictions resulting to slum dwellers being relocated to some other parts of the city and in other instances, slum dwellers being left in "limbo" without alternative housing and land arrangements or compensation; lack of sustainable financial mechanisms; no contribution to poverty reduction or problems related to unemployment and land security. The study concluded that the major obstacles to sustainable redevelopment of low in-come neighbourhoods in Kenya still remains: inadequate financial mechanisms, lack of access to land, cumbersome shelter delivery systems, lack of communal finance for shelter development and maintenance, high cost of building materials, insufficient infrastructure provision, maintenance and rehabilitation mechanisms, high urbanisation rate, environmental degradation and weak institutional co-ordination and failure to include the private organizations as well as civil society in the redevelopment programmes. The study proposed two strategy frameworks for sustainably redeveloping low in-come residential neighbourhoods, which included Financial frameworks and policy and Legislative Reforms frameworks.

The proposed financial strategy focuses on two aspects – building the financial assets and capacities of the low in-come earners and building the financial management skills of the affected residents. These financial capabilities are expected to strengthen the ability of the urban poor to engage in meaningful partnerships with city and state authorities as well as formal financial institutions, when they are upgrading their homes at the same location or being resettled at a different location. Under the policy and legislative framework, the study proposed a number of strategies for redeveloping low in-come residential neighbourhoods. These included: decentralization and centralization; privatisation and public investment; deregulation and new regulations; demand-driven and supply-driven development strategies.

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ACRONYMS

CCN	-	City Council of Nairobi
DFID	-	Department of International Development
EMCA-		Environmental Management Co-ordination Act
GDP	-	Gross Domestic Product
GoK	-	Government of Kenya
ILO	-	International Labor Organization
NHC	-	National Housing Corporation
PPA	-	Physical Planning Act
RNA	-	Residential Neighborhood Association
SPSS	-	Statistical Programme for Social Scientists
SSA	-	Sub-Saharan Africa
UK	-	United Kingdom
UN	-	United Nations
UNCHS	-	United Nations Centre for Human Settlement
GUD	-	Global Urban Development
WB	-	World Bank

CHAPTER ONE: INTRODUCTION

1.1 Background to the Problem

1.1.1 Global Overview

According to the United Nations, (2003), the global shelter conditions are fast deteriorating with indications that 1.3 billion people do not have access to clean water, the same live on less than a dollar a day and have no access to basic sanitation. The efforts to improve shelter conditions in many developing countries during the 1960s left the concerned governments rather frustrated by their efforts especially those addressing public housing (UNCHS, 2001). There are many reasons behind this frustration but key among them include the inability of those governments to cope with the growing housing needs of the urban immigrants and the rather rigid requirements set up by housing finance institutions especially when it came to collaterals or security. The result of this was that majority of the low income urban residents were displaced or squeezed out by the middle and high-income residents.

The site and services scheme of the 1970s were an improvement of the public housing programmes (UNCHS, 1996). They had several inherent advantages in that available funds could be stretched to benefit many more people and the beneficiaries could incrementally improve their housing as they maintained the agreed upon designs. The major disadvantage with the programme was the assumption that there was an abundant supply of land and that there was

enough goodwill on the part of the national and local governments to provide the badly needed technical advice.

By the mid 1970s, governments were getting concerned about the city slums and the deteriorating physical living conditions in many of these settlements. Many governments therefore condoned or allowed the unabated evictions of poor slum people to areas outside the main business districts to the outlying districts (UNCHS, 1996). Coupled with this was the unprecedented immigration into cities in search of the ever-elusive employment and high living standards by rural migrants. Many of the new migrants found refuge in these peri-urban districts or squatter settlements where housing was cheap albeit with little or no access to basic services such as water and sanitation. The slum and squatter upgrading programmes of the late 1970s and early 1980s had one major important aspect; the fact that governments had recognized the need to improve the shelter, basic services delivery requirements of slum and squatter settlements and the importance of security of tenure as opposed to evictions. Despite these progressive thoughts in these programmes they suffered from the project-oriented approach of the earlier programmes. For example there were no inbuilt mechanisms for follow up on maintenance of the investments resulting to huge losses; the programme also suffered from lack of ownership by the beneficiaries as little time had been committed to community mobilization and organization (UNCHS, 2003).

The major shift occurred in the 1980s with the popularization of the enabling approach articulated by the United Nations Global Shelter Strategy to the Year 2000. The approach put more emphasis on the mobilization of the full potential and resources of all actors in shelter development and improvement process. The major departure of this approach from the previous ones was the identification of the government as an enabler or facilitator (UNCHS, 2003). This approach also recognized the constraints realized from the previous efforts such as lack of secure tenure, inflexible housing finance systems, inappropriate planning and building standards and inability of legal institutions to involve people. This approach was taken further by the Habitat II conference by emphasizing partnerships and participatory approaches to achieve adequate shelter for all.

1.1.2 The Situation of Low-Cost Residential Areas

1.1.2.1 Latin America

According to UN-HABITAT report (1996), close to 70 per cent of the housing stock in Bogotá, Colombia is substandard, and around one-half of the population lives in squatter settlements. A 1977 survey of 135 'pirate subdivisions' in the same city found that more than one-half lacked sewers, and more than one-third lacked water and electricity (UN-HABITAT, 1996). In El Salvador, 63 per cent of the housing stock of the country's five largest cities was produced illegally or through informal arrangements (UN-HABITAT, 1996). Some 60 per cent of the Ecuador's city of Guayaquil lives in squatter communities built over tidal

swamplands (UN UN-HABITAT, 2005). These communities, known as suburbios, are mostly made up of bamboo and timber houses built on poles above the mud and polluted waters of the tidal zone. The houses are connected by a complex system of timber “catwalks”, which also link them to the shore (UN-HABITAT, 2005). The UN-HABITAT Report of (2005) reveals that about one-third of the city’s population is unable to afford down payment on a government-provided low-cost house.

In Lima, Peru, approximately one-half of the city’s population lives in inner-city slums (Tuqurios), and another quarter in squatter settlements (UNCHS, 1996). According to UNCHS, (1996), at least 7 million people in Mexico City live in some form of uncontrolled and unauthorized settlements. One third of the city’s families live in one–room shelters devoid of almost all amenities, and 80 per cent of all the dwellings in the city display some form of physical irregularity. In Sao Paulo, Brazil, up to 2 million people are estimated to live in inner-city slums and squatter settlements, and two-thirds of the families entering the labor market are unable to afford formal housing (UNCHS, 1996). The UNCHS Report (1996) indicates that around 3 million people in the Sao Paulo city obtain their water from wells sunk into a water table heavily polluted with sewage.

1.1.2.2 Asia

The UN-Habitat Report (1996) reveals that some 3.5 million slum-dwellers in Bombay, India live on about 8,000 acres of Bombay’s land- over 400 persons an acre. The report further indicates that nearly 40 per cent of households live in

one room, another 35 per cent have 5 to 9 persons in one room, and one per cent have 10 or more persons living in one room. No house has private toilet, and a quarter of the households do not even have access to community toilets and use the open spaces around the slum. According to UNCHS (1996), over a third of the slum dwellers have no drainage facilities, and another 40 per cent have uncovered drains. In Colombo, Sri Lanka, around 25,000 households live in squatter settlements, and another 25,000 in shanties in the urban area (UNCHS, 1996). The report further reveals that nearly 29000 households are estimated to live in substandard tenements built by private sector at very high densities in inner-city slums. In total, between 50 and 60 per cent of Colombo's population live in substandard accommodation, usually without adequate supporting services (UNCHS, 1996).

1.1.2.3 Africa

The UN-Habitat Report (1996) reveals that around three-quarters of Bangui's (Central Africa) population lives in self-built housing referred to as habitat spontane. The city's sewerage system was constructed in 1946, when the population was 26,000, and has never been expanded. Almost all squatter settlements are dependent on pit latrines and lack electricity and dependable supplies of water (UNCHS, 1996). The report further indicates that none of the settlements is the result of conscious planning, and their inhabitants have no title to the land they occupy. In Cairo, Egypt, there is severe overcrowding, lack of basic services, and deteriorating housing conditions, which characterize many

parts of the rapidly expanding city (UNCHS, 1996). The report says that more than 1 million people are estimated to live in the cemeteries of the city, while many others sleep in mosques. Only 10 per cent of the city's population is able to afford low-cost housing provided through public programmes.

In Freetown, Sierra Leone, most of the city's rapid increase in population has been accommodated in unplanned residential areas (UNCHS, 1996). The report reveals that the absence of affordable housing and rapidly increasing land prices have forced low-income groups into very high density housing areas in and near the city's center and onto sites ill-suited for housing, such as river banks, steep hills, the tidal zone, and even the sides of garbage dumps. Most of the city is not served by sewers, and the sewerage that is collected is discharged untreated into the sea (UNCHS, 1996).

1.1.2.4 Kenya

Kenya's capital city, Nairobi, hosts some of the most dense, unsanitary and insecure slums in the world. Slum dwellers constitute the majority of the city's population; an estimated 60 per cent of the city's official total population of 2.5 million people lives in slums and informal settlements (UNCHS, 2001). With an annual growth rate of 5 per cent, the municipality will host 5 million people by the year 2020, of which nearly 3 million will live in informal and often precarious settlements, if current trends continue (UNCHS, 2001).

Life in Nairobi's slums is not easy by any standard. As many as 1200 people live on one hectare, sometimes in shacks as small as 10 by 10 feet. Provision of basic services is extremely scant or non-existent. As many as 400 people can end up sharing one toilet (UNCHS, 2001). Besides eroding the dignity and self-respect of residents, the sharing of one toilet by so many people is the cause of many health and environmental problems in the slums. Water, electricity, cooking fuel, education, health care, adequate shelter, and financial services are in short supply, except in small quantities and at extremely high unit costs. Cash flow is tight; average monthly spending rarely exceeds 3000 Kenya Shillings (approximately US\$ 40), of which 30 per cent is often allocated to housing. Employment necessary to support such spending is precarious (UNCHS, 2001). It varies from part-time casual labour in the formal sector (industrial and domestic), to petty trade, small-scale manufacturing, and illicit activities.

Tenure for many who live and work in the settlements is insecure. 1.5 million people are confined to less than 5 per cent of the total municipal residential area (UNCHS, 2001). The population is not only squeezed, it is also subject to uncertainty associated with ambiguous and irregular land allocation, commonly referred to as "land grabbing". The State owns 50 per cent of this land officially (UNCHS, 2001). However, individuals have over time negotiated informal arrangements with the authorities to erect structures and collect rents. The result is that most slum dwellers are tenants. Structure owners are under no obligation to maintain premises or provide basic services. The ambiguous tenure status of

those living and working in informal settlements - structure owners and tenants alike - prohibits them from enjoying their rights as urban citizens. They are not recognized officially by the State and as such do not participate in decision-making processes that affect them.

1.2 Problem Statement

Nairobi has been characterized by rapid urbanization with over 60% of the population said to be living in the slums. The slums are characterized by poor infrastructure and poverty; the incidence of economic poverty is very high in Nairobi's slums. About 73 percent of the slum dwellers are poor, falling below the poverty line and live on less than US\$42 per adult equivalent per month, excluding rent. (World Bank, 2006) The housing units are mostly illegal, sub-standard in quality, and crowded. Yet the rents are high. Unlike in many other cities of the world, an extraordinary 92 percent of the slum dwellers are rent paying tenants (rather than "squatters" who own their units). Unit owners are mostly absentee landlords who seem to be operating a highly profitable business in providing shelter to the poor.

Silanga informal settlement is one of the villages in Kibera, one of the oldest and largest slums in Kenya and Africa, with an estimated population of more than a million people (UN-HABITAT, 2003). The sprawling shantytowns south and north of the capital city Nairobi lacks almost all the basic needs for human habitation. There is lack of a functioning sanitation and drainage system in the

neighbourhood. Due to lack of most basic services, the residents of Silanga each day must among other problems endure the sight of filthy narrow alleys and sludge and human waste from shallow latrines flowing into nearby streams. This situation often worsens during rainy seasons.

Due to the very complex nature of informal settlement development in Nairobi, attempts to upgrade slums have had mixed results. Past upgrading projects in Kenya have had both strengths and shortcomings at policy level. The shortcomings include: lack of affordability, high standards for infrastructure, land tenure complications, and administrative inefficiency.

Affordability has been a major problem for the poor. The case is clearer in the development of sites and services schemes, where affordability is determined before development begins. Another drawback faced in upgrading programmes is the high standards set for housing, infrastructure and service provision. Although lower standards were applied, they were still beyond the means of the poor, for whom they were intended. To complicate matters even further, upgrading was permeated by political interests that distorted the allocation of infill plots. Rather than being allocated to the displaced poor, the plots found their way into the hands of non-target groups that had political influence. Moreover, upgrading during the 1970s and 1980s was premised on the false belief that most residents of informal settlements owned the plots on which the structures were built. The policy focused on the wrong group - the owners of the structures who did not live in the settlement.

The upgrading strategies that the government applied after the sites and service schemes of 1980s have also been contentious (Magutu, 1997). For instance the Kibera High Rise project of the National Housing Corporation (NHC) of the early 1990s (bordering Soweto), in which all the units, originally intended for Kibera's slum dwellers, were allocated and/or traded to the middle class. The targeting problem in this project was due to high-level corruption beyond the control of the NHC. However, what enabled this corruption was the fact that the housing units were planned to middle class standards from the outset.

This study seeks to examine the broad framework for the redevelopment of unplanned low-income residential neighborhoods.

1.2.1 Research Questions

This study sought to answer the following questions:

1. What is the existing state of settlement in Silanga?
2. What have been the government's policy approaches and their effectiveness in the redevelopment of low in-come neighbourhoods?
3. What are the perceptions of the Silanga residents concerning sustainable redevelopment of low in-come urban residential neighbourhoods?
4. What alternative policy options would be appropriate for the sustainable redevelopment of low in-come neighbourhoods?

1.2.2 Research Objectives

The overall objective of the study was to examine the broad framework for the redevelopment of unplanned low in-come urban residential neighbourhoods.

The specific objectives of the study were:

1. To examine the existing condition of Silanga informal settlement, Kibera.
2. To examine the policy approaches in the redevelopment of unplanned low in-come urban residential neighbourhoods in Kenya.
3. To seek the Silanga residents' perceptions on the sustainable redevelopment of low in-come residential neighbourhoods.
4. To propose alternative policy approaches for the redevelopment of unplanned low in-come urban residential neighbourhoods
5. To synthesize the research findings and make recommendations and conclusions.

1.3 Justification of the Study

Informal housing may not be a desirable policy objective, but their existence in many cities can be of myriad benefits granted that they are fundamental stopping point for rural-urban migrants and hence provide low-cost affordable housing that enables the new migrants to save enough money for their eventual absorption into the urban society. With approximate 60 per cent of labour force in Nairobi

living in the informal settlements, a big section of these dwellers earn their living in informal but crucial activities, and therefore provides services that may not be easily available through the formal sector (UNCHS, 1987). Improving the living conditions in such settlements is timely as opposed to eradicating them.

This study seeks to come up with proposals, which are expected to provide alternative policy framework for integrating the development ideals of the low income neighbourhood residents in the process of the redevelopment of such settlements. Such a framework provides ways in which governments and other agencies could sensitively intervene to improve living conditions of the residents, better integrate informal settlements into urban areas, and respond appropriately to residents' development priorities, thus enhancing sustainable urban redevelopment in the process. The residents of the affected settlements would also be able to enjoy the social services they require for their well-being. The environmental status of such neighbourhoods would also be improved thereby increasing their intrinsic value. Urban planners would also gain from the conceptual framework by adopting it in their quest to propose a workable strategy for redeveloping informal settlements in major urban areas.

1.4 Assumptions and Limitation of the Study

The study assumptions included: -

1. That the results are specific to informal settlements in Nairobi and will only be generalized to other urban areas, which is actually the target.
2. That the development needs of the slum residents are the same.

3. That the residents of informal settlements are aware of their development problems

The study was limited by the following: -

1. Security problem made it difficult to penetrate deep into the settlement thereby confining data collection within the households near the main road.
2. Lack of up to date drawing of the area made it difficult to prepare base map for situational analysis.
3. Land ownership in Kibera is a controversial issue with many absentee landlords and illegal landowners. This made it difficult for the researcher to get the views of the land/structure owners on the issue of the redevelopment of the settlement.

1.5 Research Methodology

1.5.1 The study Area

The study area is Silanga village in Kibera slum of Nairobi. The area was chosen from among twelve villages in Kibera due to my familiarity with the area after having conducted an urban studio in the same place in 2007. During the studio period in Silanga, I noticed with a lot of concern the desire of the residents to improve their housing conditions. It is after the urban studio that I developed the research questions with the view of developing a conceptual framework for the

redevelopment of low in-come residential neighbourhoods like Silanga settlement.

1.5.2 Units of Observation and Analysis

The units of observation and analysis includes the actual aspects to land, housing units, infrastructure services, physical environmental characteristics, population, affordability, and institutional and legal framework.

1.5.3 Sampling Methods

1.5.3.1 Households

Silanga village is a low in-come settlement with the residents being in the same in-come group bracket. Random sampling technique was used to select the households. This was aided by the household enumeration report of Silanga village by the Kenya Bureau of Statistics. To reduce costs and control the quality of data collected and also complete the study within the limited time, 40 households within the spatial sample frame were randomly selected for the administration of household questionnaires.

1.5.4 Research Approach

The study focused on qualitative aspects of neighborhood redevelopment strategies and their effectiveness. The main strategy of this research was a combination of secondary data and case study of Silanga village, Kibera.

The multiple approaches helped me to avoid unexpected difficulties during fieldwork and increased the validity and reliability of the data. Besides, multiple sources of information improve the research by using data from other sources to support the cases.

1.5.4.1 Data Collection Tools

This research collected both primary and secondary data as follows:

1. Interview through questionnaires and observation

Direct field observation and recording by the researcher was done by use of a field notebook, base map and a camera. To verify all the information provided, the researcher made field observations. Some of the issues that were observed directly include the physical environmental and infrastructure service conditions of the Silanga village.

The researcher conducted personal interviews of selected sample respondents using standard structured questionnaires. This gave the researcher the socio-economic background of the study area. Questionnaires also captured data that were informative about the residents' perception on neighborhood redevelopment.

2. Qualitative interview with Key Informants

Guided interview were administered to the officials of Kenya Slum Upgrading Programme (KENSUP). Their contributions shed more light on the institutional framework and existing redevelopment strategies and projects. This was important in understanding the role the institution plays in the redevelopment of the country's informal settlements.

3. Documentation and maps

Not all the information could be obtained from the field; therefore the researcher looked at secondary data source from records, publications, and magazines among others. Relevant information, documents were extensively used to compliment information collected in the field.

Table 1: Summary of Information sources

GENERAL	SECONDARY SOURCES	EMPIRICAL DATA
a) Books b) Magazines c) Newspapers d) Internet	a) Journal articles b) Papers to conferences c) Government publications d) Professionals e) Unpublished materials-minutes, reports, internal correspondences	a) Personal contact with researchers b) Field visits to ongoing projects c) Round table discussions

Source: Adapted from Shihembetsa L. (1995)

1.5.4.2. Data Analysis

The study collected both spatial and non-spatial data where each data set was analyzed using various appropriate techniques. For the spatial data, which included mapping of various community facilities and land uses within Silanga village, geo-spatial analysis was applied. This was aided by the use of the 2003 Satellite image of Nairobi city, which was used as the base map; geo-spatial techniques such as Global Positioning System (GPS) and digital ground camera to update the base map. The spatial data was entered into computer and then processed using Arc map GIS software. The processed spatial data was then presented using maps, photographs and charts.

For the non-spatial data, which included residents' perceptions; past and current government policy/ strategy approaches in redeveloping low in-come settlements, the study applied descriptive, content and statistical analyses. Descriptive analysis was done on the residents' perceptions on the effectiveness of the government polices/strategies, and also on the kind of redevelopment approaches they would want the government adopt. Statistical Package for Social Scientists (SPSS) was used to for statistical analysis to obtain frequency tables and charts especially on the residents' perceptions. Finally, content analysis was done on the reviewed literature about the past and current government policy/ strategy approaches towards redeveloping low in-come urban residential neighbourhoods. The processed data was presented in form of texts and tables.

1.5.5. Summary of the Research Methodology

Table 2: Summary of the Research Methodology

Research Questions	Research Objectives	Data Needs	Sources of Data	Methods of Data Collection	Techniques of Data Analysis	Techniques of Data Presentation	Expected Outcome
1. What is the existing state of Silanga?	1. Examine the existing conditions in Silanga	Physical environment, infrastructure services, land ownership, building materials, population.	Base map Primary	Field observation, GPS mapping, photo-shooting	Spatial analysis	maps, charts, photographs	Achieve the objective
2. What have been the government's redevelopment strategies and their effectiveness?	2. Examine the government's redevelopment policy approaches and their effectiveness	Informal settlement redevelopment policies.	Secondary	Reports, Plans, Articles, ADD Library, Internet, Magazines	Content analysis through reporting	Texts and tables	Achieve the objective
3. What are the residents' perceptions on the sustainable redevelopment of low in-come settlements?	3. To assess the residents' perception on redevelopment of low in-come settlements.	Residents' perceptions.	Primary	Household questionnaires, and Interviews	Descriptive and statistical analyses.	Texts, frequency tables, charts	Achieve the objective
4. What alternative redevelopment policy would be appropriate?	4. Propose alternative policy option for redevelopment.	Study emerging issues	Primary and secondary		Reporting	Text	Achieve the objective

Source: Author, (2009)

1.6 The scope of the study

The study basically evaluates the government's policy approaches to redeveloping of low in-come residential neighbourhoods in its major urban areas. The study also examines the existing conditions within Silanga informal settlement, and finally suggests the alternative policy approaches to sustainable redevelopment of the low in-come residential neighbourhoods.

1.7 Operational Definition of Terms used in the Text

Slum: : In the context of this study, the term "slum" is used to refer to an area that combines to various extents the following characteristics-Inadequate access to safe water; Inadequate access to sanitation and other infrastructure; Poor structural quality of housing; Overcrowding; and Insecure residential status

Informal settlements: (often referred to as squatter settlements or shanty towns) are dense settlements comprising communities housed in self constructed shelters under conditions of informal or traditional land tenure. They are common features of developing countries and are typically the product of an urgent need for shelter by the urban poor. As such they are characterized by a dense proliferation of small, make-shift shelters built from diverse materials, degradation of the local ecosystem and by severe social problems.

Human settlements: According to Vancouver Declaration on Human Settlements (1976), human settlement is defined as the totality of the human community - whether city, town or village - with all the social, material, organizational, spiritual and cultural elements that sustain it. The fabric of human settlements consists of physical elements and services to which these elements provide the material support.

Sustainable Neighbourhood: In the context of this study, the term "sustainable neighbourhood", is used to refer to an urban neighbourhood, which has adequately developed infrastructure, which meets the demands of the present, without the needs of the future being compromised at any cost. Its characterised by social and economically self sustained society. This entails conglomeration of economic, social and recreational land uses within a neighbourhood.

1.8 Organization of the Study

The study is divided into four chapters. The following is a brief highlight of the main contents of the chapters in the order of their occurrence in the study.

Chapter one: Introduction

This chapter introduces the basic concepts of the study, the problem, and how the study has been formulated. It further looks at the relevant research questions, assumptions and the study objectives. The chapter also brings to the fore the research methods used in the study. It looks at the research design, choice of method, sampling methods, which include the selection of study area and selection Criteria of respondents. The chapter also looks at the research approach, data collection tools and how the data was analyzed. It finally looks at the scope, limitations and structure of the study

Chapter Two: Literature Review

This chapter begins with the review of the theoretical background of land, housing units and infrastructure services in the low in-come residential neighbourhoods. The chapter also reviews the policy approaches towards the redevelopment of low in-come residential neighbourhoods from global point of view through developing countries to Nairobi perspective. The chapter further looks at the alternative/contemporary approaches in the redevelopment of low in-come residential neighbourhoods. The chapter finally deals with the conceptual/theoretical framework of the study.

Chapter Three: Background of the Study Area

It looks at the study area (Silanga village, Kibera) and its physical environmental and infrastructure service conditions. In conclusion, the chapter gives the current situation analysis.

Chapter Four: Analysis and Findings

As the name suggests, this chapter gives the reader an analytical approach to the findings vis-à-vis the study objectives.

Chapter Five: Conclusions

This is the last chapter of the study. It contains the various recommendations in the form of policy interventions to the phenomenon of low in-come residential neighbourhood redevelopment in the context of enabled environment by the concerned authorities. It highlights the role of participatory neighborhoods redevelopment to enhance sustainability.

CHAPTER TWO: LITERATURE REVIEW

2.1 Theoretical Backgrounds on the Redevelopment of Low Income Residential Neighbourhoods

2.1.1 Land, Housing Units, and Infrastructure Services

2.1.1.1 Informal Housing

Housing is described as informal when it does not conform to the laws and regulatory frameworks set up in the environment in which it occurs (UNCHS, 2003). It can be informal at several levels. Housing can be provided through construction firms that are not licensed and whose work is not subject to guarantees. In turn, the housing is not likely to conform to the planning and building regulations in force or to be built in areas where there is no need to conform - for example, in 'semi-pucca' areas in Bangladesh or outside of city boundaries (Wafula, 2004).

Wafula, (2004) noted that housing that does not conform to rules may do so in several ways, including: being built on land intended for another use (even though the building itself may conform to the standards laid down in the regulations); not conforming to all of the standards laid down for that part of the city; not being subject to planning permission or building inspection (even though it may be eligible); Being built on land not owned by the occupier and without permission of the owner.

Formal housing can become informal by the process of extension and alteration (transformation) by users without permission, or in ways that do not fulfil standards (Wafula, 2004). This is now very common in government - built estates all around the world, as well as private dwellings in cities in Kenya as demand for housing continues to outstrip the supply by far.

2.1.1.2 Slums in the Housing Sector

The commonly accepted idea of a slum relates particularly to poor quality housing and residential infrastructure. The slum conjures up an urban tenements, dire poverty and disease; empty buildings and decay, suburban flight, roaming gangs and crack dealers; or with endless vistas of makeshift shacks on the edge of town, filled with people in despair. In each case, the image suggests that the deprived urban environment has caused the poverty, when the reverse is mostly the case; people in poverty have sought out the accessible housing that they can best afford.

2.1.1.3 Slums and Tenure Insecurity

The relationship between slums and tenure insecurity is not immediately obvious, particularly in the Western world where slums actually developed within a context of defined tenure rights. However, the situation in the rapidly urbanizing developing world is rather different

Many people living in informal settlements have been subject to continual harassment by authorities in their endeavours to provide themselves with appropriate and affordable housing (Wafula, 2004). The unsatisfactory tenure of the majority of the urban poor has all along been recognized, as access to secure tenure has often been a prerequisite for access to other opportunities, including credit, public services and livelihood.

2.1.1.4 Infrastructure

There usually is no electric power, no piped waters in the house, but perhaps a standpipe serving an area. No roads, no sanitation, no drainage. There are a few latrines and contraptions used as bathrooms. Most people just wait for the sun to set then have a bath of sorts in a basin. Wastewater is spilt somewhere nearby or in the house. No formal security like a police station but government's presence is in the form of a chief's camp, a magistrate's court – these are meant for law and order but are grossly inadequate. The inhabitants organize themselves into vigilante groups to ward off would be criminals. Similarly, one of the other social infrastructures are organized by the inhabitants themselves. They build their own churches, mosques, and dispensaries. The local authority builds markets.

Majority of the inhabitants are workers in the rich people's homes far off. Some lucky ones may find work nearby. Others are casual laborers in factories in

industrial area. They walk to work daily. Curiously the undesirable exercise to and from work and the physical nature of the work they do, keeps them in shape and healthy. In any case, most cannot afford public transport. There are exceptions. Well – trained skilled who can afford better prefer to live in slums. Some professionals have been forced into the slums from low-income housing following an economic down turn. Those low-income slum dwellers are then competed out of affordable housing and move into the streets seeking redress. Politically, these form the principal voting block and during or near elections the bourgeoisie come looking for votes, which are not denied.

2.1.2 Housing Finance in the Redevelopment of Low in-come Residential Neighbourhoods

2.1.2.1 Overview

According to the Global Urban Development (GUD) (2006), the current global backlog of slum dwellers is about 925 million people. When this figure is combined with the projected 1.9 billion additional urban populations, it is apparent that 2.825 billion people will need housing and urban services by 2030.

The demand for housing – just to accommodate the increase in the number of households over the next 25 years – is estimated to be 877 million housing units (GUD, 2006).

This challenge is not just about the quantity of population, but also its composition. Cities are changing rapidly, especially in terms of both the scale

and rate of demographic, social and economic transformation. This pattern of growth will also place additional strains on environmental resources needed for cities, such as clean water and clean air. Growing demand for infrastructure services places immediate pressures on natural resources. Environmental studies show that cities have important impacts upon the natural environments in which they are located, what is known as their 'ecological footprint'. Consumption of natural resources by urban residents – for example, firewood in Africa – is frequently growing faster than nature is able to reproduce those resources. This pressure on natural resources is most dramatically shown by the increasing cost of potable water in almost every city in the world.

With this backdrop, it is clear that the capacity of developing countries to finance their needs depends largely upon their level of future economic growth and development (GUD, 2006). If countries are able to generate employment and incomes for growing populations at an accelerated rate, they will be able to generate and mobilize the savings and investment to finance housing and infrastructure services. The GUD, (2006) identifies two key factors needed to translate macro-economic growth into finance for urban development. The first is governance – how public, private and non-governmental institutions work together to plan and manage cities. These institutional challenges range from establishing the laws and regulations governing life in the city, to developing new residential areas for the growing population, to decentralized problem-solving at the community level. The growing trend towards decentralization in most national governments in developing countries has transformed the roles and

responsibilities of these institutions over the last two decades. However, this process is also insufficient to provide the needed housing and infrastructure services for growing populations. The second factor, finance, is essential for this process.

2.1.1.2 Neighborhood improvement (slum upgrading)

There appears to be a growing interest in using micro finance agencies to provide specialist financial services within more comprehensive neighborhood improvement and poverty reduction programs (GUD, 2006). Within this strategy, the development agency, central government, and/or municipality finance a process to upgrade the low-income area with components to regularize tenure and provide and/or upgrade infrastructure and services. The upgrading program then contracts with an organization to offer small-scale housing loans for those who wish to upgrade their homes.

A good example is the Local Development Program (PRODEL) in Nicaragua that was set up to enhance development in smaller towns and cities with a number of components, including infrastructure improvements, housing loans, and loans for micro-enterprises. A more focused (and smaller-scale approach) is illustrated in Ahmedabad, India, where the Slum Networking Project (undertaken within the municipality) wished to include a credit component to help households afford to contribute to infrastructure improvements (GUD, 2006).

While most slum upgrading initiatives have been led by the state, an alternative approach is that developed from an Indian alliance of the Society for the

Promotion of Area Resource Centers (SPARC) — an NGO — the National Slum Dwellers Federation and Mahila Milan (a network of women's collectives). Their strategy is to develop the capacity of local communities to manage a comprehensive upgrading and redevelopment process that is financed primarily by the state (through subsidies), with additional monies through loans taken by communities and repaid by individual members (GUD, 2006). Through a not-for-profit company, Samudhaya Nirman Sahayak, communities draw down the funds they need to pre-finance land, infrastructure, and housing development. The scale of activities has resulted in additional donor finance being drawn into the process through the Community-led Infrastructure Financing Facility (CLIFF).

The neighborhood development (slum upgrading), together with the servicing of greenfield sites, approaches suggest a number of distinct neighborhood and housing strategies that include a role for small-scale housing loans:

- improvements of existing housing units (this is the dominant approach today within shelter microfinance);
- linked land purchase and housing loan developments;
- linked land development and/or upgrading paid for with a capital subsidy and housing loan developments; and
- Linked settlement upgrading and housing loan.

2.1.3 Policy Approaches Towards the Redevelopment of Low in-come Residential Neighbourhoods

2.1.3.1 Globally

According to the most recent international estimates, more than 900 million people can be classified as slum dwellers, most living under life- and health-threatening circumstances, often lacking several of the following conditions: access to adequate clean water, access to improved sanitation facilities, sufficient living space, dwellings of sufficient durability and structural quality, and security of tenure. Almost one out of three urban dwellers (one out of every six people worldwide) already lives in a slum (UN-HABITAT, 2003).

Many policy approaches to slums have been attempted during the course of the last decades. They range from passively ignoring or actively harassing men and women who live in slums, to intervention aimed at protecting the rights of slum dwellers and helping them to improve their homes and living environments. According to Wafula, (2004) some of the global policies towards informal settlements include the following: -

Negligence

This is based on heavily subsidized low cost housing programmes that, in the context of high and steady economic growth, bring improvement of housing conditions and results in elimination of Urban Slums. In an effort to achieve similar results, most developing countries responded to the housing needs of the poor through the formal provision of low cost housing. In the place of thorough

policies of slum upgrading or integration, and making use of public land reserves and public subsidies, governments embarked on massive public housing schemes. They targeted, in principle, non-income, low-income and low middle-income groups. But actually they were allocated to the middle classes, government employees and political clienteles. The high cost of this approach was the main reason why the housing needs of the poor have not been met and informal settlements have grown

Eviction

This was a common response to the development of slums during the 1970s and 1980s, particularly in political environments predominantly by centralized decision-making, weak local governance and administration, non-democratic urban management, non-recognition of civil society movements and lack of legal protection against forced evictions. When it became clear to the public authorities that the economic development was not going to integrate the slum population, some governments opted for a repressive option with a combination of various forms of harassment and pressure on slum communities, leading to selective or mass eviction of slum dwellers.

Negotiations with slum dwellers (who were considered to be illegal squatters) were rare. Communities living in informal settlements were rarely offered viable alternative solutions, such as resettlements. More often than not, no compensation whatsoever was paid to evicted households. Evictions were usually justified by the implementation of urban renewal projects (especially

during the redevelopment of city centres) and by the construction of urban infrastructure or for health, sanitary and security reasons. The highest pressure was therefore exerted on inner city slum dwellers who occupied prime locations for development with better access to infrastructure. This approach shifted slums to peri urban fringes and rural areas where access to land was easier and planning control non-existent.

2.1.3.2 Developing Countries

Slums are often conceived and portrayed as institutional failures in housing policy, housing finance, public utilities, local governance and secure tenure. Thus, measures to address their existence and appearance have evolved around such thinking. During the postcolonial period, particularly in the 1950s and 1960s, the issue of slums in Developing Countries (DC) emerged as an important area for urban research and policies (Pugh, 1997). As a result, various slum strategies were implemented to (at least) mitigate the socio-economic, physical and health well-being of slums and their residents. This section discusses governmental attitudes, responses and policies towards slum since the 1950s.

These changes can be categorized into three main approaches: centralized control of housing, neo-liberal approach and the emerging preventative approach. For the purpose of this study, these three approaches are discussed following five major chronological categories: laissez-faire attitudes in the 1950s and 1960s; site and service programs in the 1970s, slum upgrading in the 1980s, enabling strategies and security of tenure in the 1990s, and Cities Without Slums

action plan in the 2000s. The following analysis will first invoke the instruments various DC have used to implement each policy.

1. Laissez-faire Attitude: 1950s-1960s

During the tolerance period in the 1950s and 1960s, urban authorities in DC turned a 'blind eye' to slum and focused on public housing (Farvacque & McAuslan, 1992; Rakodi, 2001). Slums were considered 'relics of traditional villages' and in the process of being absorbed by the new urban planning scheme inherited from Western societies— with little consideration of local and cultural realities (Gaskell, 1990; Njoh, 2003). However, many urban dwellers, especially new migrants in the low-income category, could only afford shelter in marginal and unsuitable land around these new 'planned settlements'. In fact, policy-makers and urban planners regarded the existing slums as a temporary situation, and thus a minor threat to long-term urban development.

The perceived 'low-income' shelter strategy was to develop public housing projects. Unfortunately, these projects were implemented in a discriminatory fashion, largely because the 'indigenous' political rulers, who replaced the colonial power, perpetuated the existing social and class divisions as the previous 'master' (Fanon, 1963). In fact, the main beneficiaries of formal public and planned housing schemes were civil servants and middle and upper-income earners (Fekade, 2000). Moreover, nepotism, corrupt practices, poor governance and incompetence significantly and rapidly contributed to the expansion of slums, and widened the gap between those who were in positions of power or had some

sort of 'connections' and the rest of the urban population (Global Urban Observatory, 2003).

Overall, it appears that between 1950 and 1960, most urban authorities in DC adopted a laissez-faire attitude towards burgeoning slums. The alternative choice, public housing schemes, performed poorly in terms of meeting housing demands in many cities in DC. For example, Hope (1999) reports that public housing schemes across Africa as a whole provided less than 5% of housing needs. The failure of public housing can also be attributed to factors such as cost, socio-economic discrimination, and inappropriate design (Malpezzi & Sa-Adu, 1996; Hope, 1999). Thus, such public housing schemes were unable to supply sufficient dwellings. Instead, the approach marginalized the majority of urban dwellers and ignored low-income urban dwellers and rural urban migrants who settled there generating more slums. Furthermore, it is now clear that urban effort and resources directed towards providing public housing have ended up serving a small portion of urban dwellers and usually those that were largely better resourced than the majority (Adeagbo, 2000).

2. Site and Service Scheme: 1970s

In the 1970s, most governments in DC opted for a direct and centralized (State) intervention, executed through World Bank's instigated programs such as the site and service scheme. This particular scheme advocated the clearance of centrally located slums and their relocation to newly serviced plots often outside the

existing urbanized areas. This policy was driven by affordability and cost-recovery strategies (van der Linden, 1986).

Site and service schemes are credited with enabling shared responsibilities between slum dwellers and government. On the one hand, the program emphasized the participation and the contribution of the beneficiaries to the resettlement process. Similarly, the programs acknowledged and capitalized on the ability of low-income dwellers to mobilize informal resources. On the other hand, local governments were no longer acting as 'providers' but as 'facilitators', which saved them some resources (Pugh, 2001). The implementation of site and service scheme was heavily criticized especially its demolition and eviction components. In some cases evicted slum dwellers were relocated to other parts of the city (for example chirambahuyo in Harare). In many other instances, slum dwellers were left in 'limbo' without alternative housing and land arrangements or compensation (Butcher, 1986).

The demolition without adequate relocation process actually aggravated the housing shortage partly because there were not sufficient plots available to relocate those whose houses had been demolished. Other shortfalls of the scheme included the relatively low number of beneficiaries, the lack of understanding and clarity around the role of the private sector, the lack of planning around the location of new serviced plots, low or non-existent standards, and the failure to achieve cost recovery (Pugh, 2001). For instance when assessing the number beneficiaries, Hope (1999) found that less than 6%

of intended beneficiaries in Kenya, Zambia and Zimbabwe actually benefited from the scheme for the paradoxical reason of affordability. This was so because the transitional period between the demolition and the new establishment was not always well negotiated (lack of slum dwellers' participation). Moreover, several evicted slum dwellers had difficulties accessing or being qualified for new serviced parcels due to lack of land titles and rights (the majority could not legally claim and prove their tenure right), illiteracy (most documents were written and they needed to fill out applications), corruption and bureaucratic hurdles (Malpezzi & Sa-Adu, 1996).

Overall, the implementation of site and service schemes failed to address slum management issues and there was often no provision made for preventing or reducing the future expansion of slum. The magnitude of the negative impacts and shortcomings easily offset the positive aspects to a point where new strategies had to be introduced with the hope of curbing the rapid and continuous degradation of slum areas.

3. Upgrading Strategies: 1980s

In the 1980s, the upgrading strategies emphasized the improvement of communal infrastructure and services within the established slums (Banes et al., 2000). In particular, the upgrading projects targeted the improvement of basic services (e.g., sewage, water, sanitary, garbage collection, electricity) and infrastructure (e.g., road, market, healthcare and education centers) that were

lacking or decaying in slum areas (Pugh, 2000). Upgrading projects were to be implemented with lesser intervention of government than in site and service schemes. Local upgrading strategy was appealing because it avoided (unnecessary) demolition, was cheaper per unit than site and service approach, and preserved social and economical networks. The upgrading program aimed to achieve three main goals: affordability, cost recovery and replicability.

In terms of affordability for instance, there were some instances of success. Earlier assessments of onsite upgrading projects were encouraging (World Bank, 1994). For instance, in his evaluation of Visakhapatnam (India), slum upgrading, Abelson (1996) reported that the beneficiaries' income rose by 50% and their land value and assets improved by 82%. In other instance, the San Martin Pores (Manila) upgrading project was praised for the community participation and legal and institutional planning outcomes (Santiago, 1987; Kessides, 1997). The importance and success of grassroots participation in various World Bank funded upgrading schemes have been reported for projects in Indonesia (especially the Kampung Improvement Program) and other projects in South America countries such as Bolivia, Brazil, Mexico, Costa Rica and Peru (World Bank, 1995; 2003).

Despite these specific successes, upgrading programs also had many shortcomings and overall, failed to meet their expectations. Generally, they were criticized at four main levels: failed financial commitment, negative socio-economic impacts, insecurity of tenure and the non-replicability of 'best practices'. First, the program was implemented and financed by foreign agencies,

which over time gradually reduced their financial support to the various projects. For instance, the relative importance of the upgrading budget of the World Bank went from 42 % in the late 1970s to less than 8 % in the late 1980s (Brennan, 1993). Similarly, local government could not sustain the financial cost of upgrading. As the funding dried out, many programs were suspended, and the lack of income meant that infrastructure and services could not be created, completed, sustained or maintained.

Second, upgrading programs did not produce the socio-economic impacts projected. For instance, in his review of the upgrading programs in Indian cities, Amis (2001) indicated that the program had no contribution to poverty reduction or problems related to unemployment and land security, which the program had aimed to achieve. Ironically, improving infrastructure and services had led to an increase in real estate value, thus encouraging land speculation. Low-income dwellers were, therefore, shifted out of the upgraded areas for the benefit of middle and high-class urban dwellers. The UN-Habitat (1999) illustrates this problem with the example of Dandora, a slum in Nairobi, where in the 1980s, the World Bank financed an upgrading program. A survey in the area 10 years after the completion of the program revealed that more than half of the current inhabitants were middle or high-income city dwellers, and were not resident at the commencement of the program.

Third, upgrading programs did not often integrate security of tenure with employment or income-enhancing activities. There was no evidence from any of the upgrading programs to support the argument that such a project could be duplicated elsewhere, nor sustained in the long term (Durand-Lasserve, 1996). Sehgal (1998) indicated that instead, many associated negative factors jeopardized the sustainability and the success of upgrading programs: local politics, corruption, conditions attached to foreign aid, the value of real estate and the location of a particular slum or squatter settlement.

Fourth, upgrading programs only reached a small portion of slums and did not develop into an ambitious project that could address the shortage of shelter on a citywide scale. The upgrading of communal infrastructure and services did not improve individual dwellings. Therefore, on many occasions, the socio-economic and physical environment within the upgraded areas continued to deteriorate (Werlin, 1999). The insecurity of tenure deterred slum dwellers' ambition to undertake housing improvements or upgrade individual shelter. The lack of security of tenure also inhibited the efforts of public and private service providers (such as electricity, water and telephone companies) to invest in unplanned areas. Moreover, the upgrading model did not address the issue of emerging slums, nor did it provide a proactive approach towards the creation of future slums.

4. Security of Tenure and Enabling Approach to Slums: 1990s

One of the major ways in which urban planning strategies have been approached to improve the slum conditions has been the development of practical mechanisms to consolidate and secure land tenure. The security of tenure campaign is closely associated with the enabling approach (World Bank, 1993). The enabling approach advocated seven major points: development of housing financing systems, targeting of subsidies, encouraging property rights (including security of tenure), improving infrastructure, auditing and removing barriers, restructuring building industries and reforming institutions (Pugh, 2001). The enabling approach is understood as advocating that legal, administrative, economic, political, urban stakeholders and financial institutions should facilitate and secure the shelter and tenure to the most vulnerable portion of urban dwellers. In the 1990s, the enabling approach was implemented through security of tenure strategies largely supported by international agencies, namely UN-Habitat and the World Bank, as a contingent measure to limit the eviction and demolition threat in slums (Jenkins, 2001). The assumption was that although slum settlers do not necessarily have the legal title over the land, they could undertake improvement on their properties without fear of eviction. The enabling approach, via its emphasis on security of tenure, also postulated that the availability of and the accessibility to urban land provide a sense of 'belonging' and brings stability to an urban area (Kombe & Kreibich, 2000).

The security of tenure approach derives from the assumption that when the residents have the sense of appropriation, they also have the confidence,

motivation and will to invest, upgrade or improve their environment. The capability of slum dwellers to significantly improve the quality of their environment can be illustrated with a project in Dar-es-Salaam in Africa whereby through securing the land, residents had the incentive and the motivation to clean up the neighborhood (Durand-Lasserve & Royston, 2002). The regularization of this informal environment will help address the problem of tenure insecurity in already established slums, which otherwise would translate into a vicious cycle of construction, destruction, eviction and reconstruction. In contemporary Africa for instance, South Africa is leading the land regulation campaign by providing secure tenure with basic services to displaced squatter dwellers. Before destroying a slum, the government in South Africa allocates new plots with basic functional services such as roads, water and sewage (Masland, 2002).

The security of land policy, however, has two major limitations. First, this policy advantages land grabbers and informal 'conquistadors', rather than those who reside there. So, when regulation does occur, the slumlords (who do not necessarily live in the settlement) will resell or rent the land to city dwellers, eventually at a higher price because the land value has increased with the security (Payne, 2004). Therefore, slum settlers who failed to claim their land rights, or who were renting, will seek another site to develop or create slum-like settlements (Fernandes, 1999). It is also fair to query how the security of tenure intends to address the availability of urban land (especially access of low-income dweller to planned settlements) and removal of artificial land shortages. Second, the implementation of security of tenure does not guarantee any long-term

solution to the expansion of emerging and future slums. This is an important gap that the security of tenure policy has failed to address.

2.1.3.2 Kenya

For a long time, the Kenyan Government opted for squatter improvement. Sessional Paper Number 5 of 1966 on Housing Policy is quite clear on this. It states in part:

“If towns are not to develop into slums and centres of ill health and evil social conditions, low in-come urban housing and slum clearance must continue to form the major part of the nation’s housing programme....”

It is obvious that arguments for laissez-faire on the one hand, and the critiques of this approach on the other, have been overstated for ideological reasons, nevertheless, most academicians in Kenya decided to follow the New Orthodoxy of John Turner. The aim was to make squatter settlements legitimate in the eyes of the government. Etherton et.al. (1971) write:

“The main purpose of describing Mathare Valley is to bring the problem of uncontrolled settlements into focus, in the hope that it will no longer be regarded as socially marginal and physically insignificant, but rather as one of the most crucial aspects of the city’s future development”.

D. Haldane (1971) similarly argued that Mathare Valley should be improved. Marja Hoek-Smit (1976) indicated the possibilities for the improvement of Majengo in Masaku. The academicians appear to have succeeded. By 1980, Philip Amis observed that there was no more harassment of squatters in Mathare Valley, Kibera and Kawangware (Peter. M, 1982). In fact, by 1980, the World Bank had not only persuaded the Kenya Government to allow squatter settlements in place, but had in fact committed the government to improve them. In its submission to the World Bank, for the Second Urban Project, the Government of Kenya (1977) proposed that Mathare Valley, Ruaraka, and Riruta in Nairobi; Chaani in Mombasa; and Manyatta, and Pandperi in Kisumu should be improved by providing piped water supply, a sewerage system, storm water drainage, refuse collection and an access road network.

The Third Urban Project of the World Bank called for improvement of squatter settlements in Nakuru, Eldoret and Kitale (Waweru, 1982). The World Bank was quite impressed by Indonesia's slum improvement programme in Jakarta and wished to pass this experience on to Kenya, among other countries (S.O Noormohamed, 1980).

By 1981, G.G. Maina (1981), Kenya's Chief Housing Officer, could put forward arguments for squatter improvement programme at the meeting of the Commission on Human Settlements in Manila. However, in 1983 G.G. Maina noted that the upgrading approach had not been really effective in Nairobi although it was being implemented in places like Kisumu.

2.1.3.2.1 Nairobi

From the 1920s onwards, various forms of sites and services schemes have been constructed (e.g. Pumwani). The 1950s policy of stabilizing the urban population was crystallized into genuine sites and services projects following the recommendations of the Vasey Report (1950): "the means of creating a permanent... urban native community, with its own sense of responsibility and communal pride exists - they should be used, but cannot effectively be taken in, unless the fundamental unit of association and community is materially created in bricks and mortar..."

In the 1960s, the serviced plot projects were revived under the name sites and services schemes. Uhuru and Kariobangi are examples of this approach; the latter adopting shared shower and toilet blocks. The two schemes performed very well in terms of cost of housing and target group but the authorities were not very happy with the low standard of housing resulting from sites and services schemes (Saad Yahya, 1999).

Therefore, until 1975, despite government policies and National Housing Corporation programmes explicitly advocating sites and services schemes, the number of sites and services plots developed in Nairobi was so low that they were of limited importance in meeting the need (Saad Yahya (1999). The City Council demolished a number of squatter settlements in the 1960s and the beginning of the 1970s and maintained in Council housing a standard of "decent homes" of self-contained family housing units of at least two rooms, kitchen, bath and toilet, as advocated in the National Development Plan.

Foreign advisers to the Nairobi City Council, the Metropolitan Urban Study Group, demonstrated the inappropriateness of current City policies towards informal housing development. As part of a broader development strategy they supported adoption of the Government's policy in Nairobi, proposing a shift to low-income housing programmes such as sites and services, and squatter settlement upgrading schemes. This policy was approved in 1972. The objectives of the policy were broadly as follows:

- To test the suitability of the sites and services and the squatter settlements upgrading approach for meeting the housing needs of the low-income population;
- To improve employment potentials in the building industry;
- To improve health conditions and raise living standards for the urban poor;
- Through more efficient planning and implementation, to help households increase their savings;
- To provide Government with the possibility of reducing the cost of services and housing units, and thereby of reaching larger numbers of the urban poor;
- To improve the capacity of Government institutions in order to increase the number of units in sites and services and upgrading schemes.

In addition, the programme was supposed to demonstrate the extent to which self-help could be relied upon to reduce the cost of housing units.

1. Pumwani Redevelopment Project

Pumwani has been redeveloped thrice. Each time a sector has been isolated and redeveloped. The main actor has been the National Housing Corporation (NHC), a non-profit making arm of the central government. The government disburses the housing funds to the local councils through this authority. The first redevelopment was in 1968. Before this, to identify future beneficiaries, NHC undertook a social survey among the residents of Pumwani,

The second redevelopment was in 1987 and the most recent one was in 2002. This recent development of the housing has brought about numerous violent protests by the targeted population. Firstly, they view the allocation exercise as being riddled with corruption. Although the NHC thinks otherwise, the beneficiaries opine that the 1968 census results have been overtaken by event. Secondly, they view the monthly repayments as being beyond their means. In a two-roomed apartment, they have been offered opportunity for subletting one of the rooms at a rental charge that is much higher than they were earning from subletting before the upgrading.

Thirdly, beneficiaries opine that they were never involved in the redevelopment. Although the latest redevelopment was completed in October 2005, the beneficiaries have refused to accept the offers. A housing delivery system that the government was of the view that would assist with housing the poor has been rejected outright.

2. The Dandora Project

The Dandora project was initiated to test the legitimacy of the sites and services strategy in providing low-cost shelter for low-income households. The philosophy was to combine public investment in land and infrastructure with mobilization of the savings and labour of the individual family. Self-help housing was on the agenda of the international agencies, with much inspiration from Latin America.

The Dandora Project though applauded by the World Bank Appraisal Report (1978) as being successful in cost recovery by the beneficiaries, in a later evaluation by Saad Yahya and Associates (1988:pp5) it was reported that the project fell short of its objectives in the area of cost recovery for the shelter component and building materials loans. However it was generally accepted that the project resulted in a significant additions and improvements to the housing stock of Nairobi, and in the largely needed expansion of the city's sewerage system. Institutionally, the Dandora project was for the first time implemented without direct involvement of either the Central Government or the National Housing Corporation, hence giving independence to local authorities. The project was also essentially sectoral. The Council passed the responsibility to a single department to carry out all the secretarial, legal, technical and financial tasks. As expected the traditional departments of the Council did not co-operate with the HDD. Other council departments, particularly the Public Health and the Municipal Engineer were not sympathetic to any lower standards.

As observed by Lee-Smith and Memon (1988), the conflict led to halting of implementation of Phase 11, with complete redesign resulting in new expenditures of Shs. 25 million. This had far reaching implications for the residents of Phase 11 in terms of higher charges. It is therefore no surprise that while 99% of the beneficiaries in Phase 1 did in fact build the required 2 rooms on their plots, 35% of the beneficiaries in phase11 failed to build and abandoned the project (Saad Yahya, 1999).

Shihembetsa (1986) examined public participation in the Dandora project and found that the project was planned by technical staff in HDD without a survey to determine the felt needs of the people. The applications were solicited through the press when planning work had been completed. The allottees were forced into pre-determined conditions and had no choice in the matter. The people who are supposed to benefit from any project must be incorporated in the whole process, from planning to the final stage of implementation. There should also be feedback from the affected people as implementation progresses as the feelings of the people can change the whole approach. Success should not be determined simply by the number of houses completed but also by how the process has impacted on the beneficiaries.

In his evaluation of Dandora Phase 11, MacInnes (1987) points out the need for one to have an interest in certain more enduring patterns of socio-cultural behaviour of a target population. Thus it was necessary to find out how the targeted population for housing in Dandora had made a living before moving into

the project and how they might be expected to win a living and finance new construction after being resettled on these randomly assigned plots near the periphery of the city. He observes that from an anthropologist's perspective, one would expect many low-income beneficiaries to bring with them into Dandora the same cultural perception of their dwelling as a base from which to earn an income as they had done in their previous informal settlements.

The new environment did not allow for this kind of activity as the houses were now for single human use, which defeated more than 35% of the minimum income allottees. Thus it is imperative that more attention should be paid to the target population's accustomed methods of earning an income and how they might prefer to earn one after resettlement on a self-build plot. Similarly, market stalls and commercial plots should not be pre-maturely allocated to non-target population simply because they have the capital to develop them while the target population remain without source of income.

The Second Urban Project

The Second Urban Project was implemented to continue Bank support in the urban areas initiated under the First Urban Project at Dandora in Nairobi. The conceptualization and planning of the 2nd Urban Project was informed by the "basic needs" concerns as well as the self-help debate. It was considered politically crucial to integrate the urban poor through packages of project components that improved their access to services and shelter. The project introduced upgrading of squatter settlements as an official policy in addition to

the provision serviced plots.

The Second Urban Project was to be implemented in the three largest towns of Nairobi (Mathare North and Kayole Site and Service Projects), Mombasa (Mikindani and Miritini Site and Service and Chaani Upgrading Projects) and Kisumu (Migosi Site and Service and Manyatta Upgrading Projects) because they dominated the urban shelter problem and the implementation of urban housing policy in the country.

The Second Urban Project was to increase the supply of sites and serviced plots, introduce upgrading of unserviced squatter settlements as an official policy to compliment the sites and services, stimulate and encourage employment and income generating activities for the urban poor, demonstrate an effective low-cost delivery system for health, nutrition and family planning services, and strengthen institutional capabilities of Government and local authorities for implementing and managing urban development. The outcomes would be verified in terms of numbers of beneficiaries, rates of cost-recovery and numbers of institutions created.

Project Impact Assessment

Although the project started with a high degree of enthusiasm during the preparation and implementation stages, it does appear that the institutions involved did not make adequate use of the lessons learnt in Dandora Project. One major weakness was the inability to provide adequate opportunities for

community participation and consultation. The beneficiaries particularly in the upgrading areas were not consulted as regards proposed interventions, and their views, felt needs and aspirations were therefore not taken into account. As is in the case of Dandora, the community development staff employed during implementation phase found it difficult to explain already packaged project solutions to beneficiaries. Not only, therefore, had the main decisions with respect to project design been taken in Nairobi, but also processes of first, consultation, and second, presenting information on project components and their implications, were very limited.

Magutu (1997) notes that in the partially settled area of Chaani, consultation took the form of a questionnaire survey of a mere 50 of 20,000 residents, which then appears to have had no influence on project design. Public meetings to inform residents of the imminent project, if held at all, reached very few residents. A preoccupation with loan repayment meant that the Mombasa Municipal Council was not concerned with sustainable livelihoods, hence the transfer of plots from low income allottees to higher income households. Although main infrastructure networks were installed or improved, for example in Chaani, many secondary links were not made because project funds ran out, individual connections have been ruled out by the cost or severe water shortages, and services such as refuse collection, for which the Mombasa Municipal Council is responsible, have not been provided (Magutu, 1997).

As with the earlier housing projects, the sites and services and upgrading approach as used in the Second Urban Project was non-participatory. It failed to take into account the livelihood strategies of the poor, and to adjust standards to what they could afford to pay. Although it targeted low-income groups, issues of gender and age were not considered, and the needs of particularly deprived groups such, as the elderly, women-headed households, recent migrants and the disabled were not considered. Not only did the Mombassa Municipal Council have little choice over project components and standards, therefore, but the project in practice probably reflected the bureaucratic and technological preferences of many of its staff. Potential inputs from intended beneficiaries were ignored and councillors marginalized except in the plot allocation process. Perhaps well intentioned at the outset, like earlier public interventions in housing, this project failed to address the needs of low-income groups, and most housing for poor residents continued to be provided by landlords in informal settlements.

Another pertinent feature which arises from lack of community participation regarding low income housing projects in Kenya is that planning and infrastructure standards found to be suitable or adequate on one site or municipality may not necessarily be replicated elsewhere. It was for instance, Dandora Project standards that were modified for the Second Urban Project. Standards for Dandora were considered too low for the Kayole site and services plots in Nairobi and in Chaani in Mombasa the standards were regarded as too high and unaffordable to the local people.

Similarly, in their evaluation of the project, among other things, Saad Yahya Associates (1989) observed that social facilities such as markets have become difficult to plan with certainty. The relationship between kiosks, markets, shops and supermarkets is not well understood by planners and more research needs to be done in order to avoid repeating disasters of the recent past. It is necessary to understand why a wide range of retail and other economic activities have sprung up in and between the houses (restaurants, tailors, provision stores, furniture makers etc) in the project areas when they were not consciously planned for, but have now to be tolerated while some market stalls remain vacant. This means that marketing surveys may be more essential than credit for informal sector enterprises.

Mathare 4A Development Programme

Mathare 4A is one of the individual slum villages in the Mathare Valley, the second largest slum area in Nairobi after Kibera (Gitec Consult, 1995). The entire area under the programme is 18 hectares entirely built on Government land. A feasibility study carried out by Gitec Consult (1995) reported that the site had a total population of 21,600 or approximately 8000 households. About 90% of the households are tenants, while 10% are structure resident owners. Single households with dependants in the rural areas form 50% of the population, 5% are single women households with children and the remainder are family households. The inhabitants generally belong to the lowest urban income group with a heterogeneous ethnic composition.

The primary development goal of the project was defined as the improvement of the living conditions of the people in Mathare 4A. The specific objectives were (a) Speedy infrastructure upgrading and improvement of the housing environment with self supportive administration and maintenance of services and facilities; (b) Continuous improvement of the housing situation in a process of development from inside with substantial contribution to housing investment from internally generated financial resources; and (c) Preservation and strengthening of the multi-functional residential, social, commercial and economic character of the area.

Project Impact Assessment

According to project status report of February, 2000 (Amani Trust, 2000) the infrastructure provision has been completed in 45% of the entire Mathare 4A with the following facilities in use:

- (a) 1500 residential accommodation replacing the old structures. The rate of construction is continuing at 400 hundred per year
- (b) 140 water supply and sanitation facilities as well as garbage collection points
- (c) 30 small kiosks constructed and let out to business people from the area
- (d) A health facility, the Baraka Medical Centre
- (e) 2 kindergartens.

As a result of the above, the living environment is significantly better in the affected areas than in the rest of Mathare Valley. The rents charged by the project compare favourably with rents charged by private owners for poorer

quality housing. The project also has a higher degree of sustainability since the beneficiaries themselves generate the capital for their own development, thus reducing the necessity of subsidies from both Government and donors.

The residents pay rent to the project at the same level as before, and the rent is used in the maintenance of the existing less permanent structures initially as well as maintenance of infrastructure developed, and any surplus is used for further housing development. The project also provides employment to the target group during construction of the infrastructure and repair works since 70% of the labour is assigned to the residents. Self-responsibility is also encouraged through the group management of the wet cores. While the project can be seen to have achieved its main goals, it has met with difficulties in the implementation process arising from the project concept.

2.1.4 Contemporary Approaches in the Redevelopment of Low In-Come Residential Neighbourhoods.

2.1.4.1. Cities Without Slums Action Plan: Post-2000s

The new century has called for new strategies and plan for slum and low in-come settlements. In 1999, the World Bank and the UN-Habitat initiated the Cities Without Slums (CWS) action plan, which constitutes a part of the United Nations Millennium Declaration Goals and Targets. Specifically, the action plan aims at improving the living condition of at least 100 million slum dwellers by the year 2020 (UN-Habitat, 2003). The main innovation in this policy is to move from the physical eradication or upgrading of slums adopted by past policies, to start to

address one of the fundamental reasons why slums exist in the first place: poverty. The action plan recognizes that slums are largely a physical manifestation of urban poverty, and to deal with them effectively, future actions and policies should also associate urban and slum stakeholders in the poverty reduction or eradication campaign.

This extended approach of CWS action plan is encouraging, but raises four important concerns. Firstly, poverty is just one of the components of the incidence of slum (Shatkin, 2004). The CWS is not comprehensive enough to determine other variables that also account for slum incidence. Such variables could include (at the macro and cross-country levels) debt burden, health issues, social and political instabilities and natural disasters. Secondly, the number targeted is far too modest to significantly change the number of slum dwellers by the year 2020.

In 2000, it was estimated that 850 million people live in slums and it is projected that by 2020 the number will reach 1.8 billion (UN-Habitat, 2003). It is clear that this target will do too little too late to effectively improve the living conditions of more than 1.7 billion slum dwellers. Thirdly, there is no clearly defined variable to measure the 'improvement of living conditions' of 100 million slum dwellers. One can reasonably query how it will be possible to differentiate between 'improved living conditions' driven by CWS –in different cities, realities and contexts– and other city development strategies. Such uncertainty suggests that the operational and methodological components of the CWS action plan are yet to be defined or

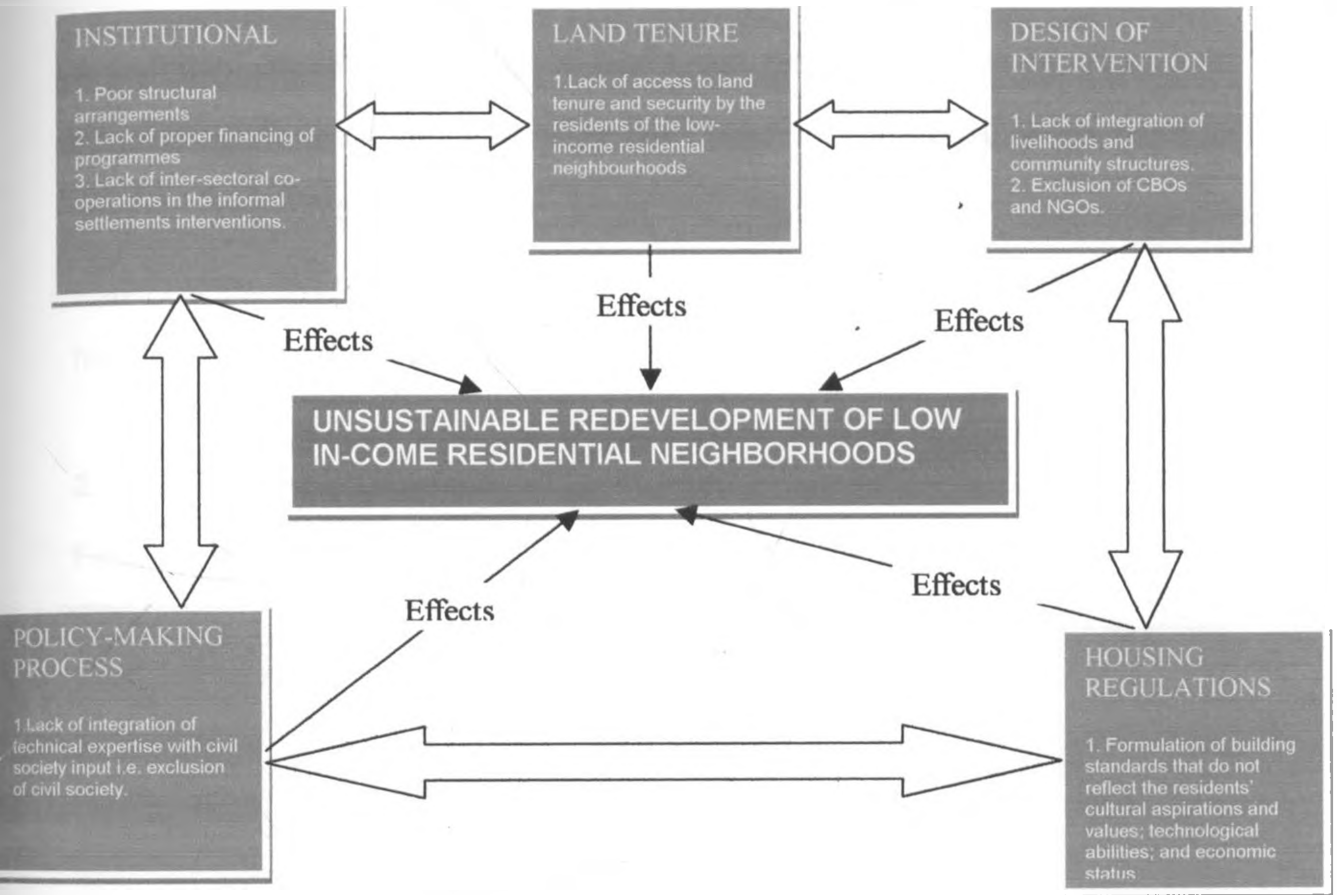
fine-tuned. Finally, the CWS action plan does not articulate what measures should be taken or formulated to curb the emergence of new slum. Similarly, there is no provision or indication as to what actions various urban stakeholders' at all levels (local, national and international) should undertake to reduce, if not stop, the mushrooming of new slums. Unless these concerns are properly taken on board, the ambitious 'City Without Slums' action plan remains a slogan.

2.2 Conceptual/Theoretical Framework

The most important element for success is commitment by all: the city, the community, and the families. A sense of partnership must be developed among them. And secondly settlement redevelopment must meet a real need - people must want it and understand the value. To implement, you must get the institutional arrangements right: give incentives for agencies to work with the poor, keep everyone informed and coordinate between stakeholders, and define clearly the roles of the various agencies. And to keep redevelopment going, sustainability concerns must be a priority in financing, institutions, and regulations.

2.2.1 Problem Analysis

Figure 1: Main (Hypothetical) causes of unsustainable low in-come residential neighbourhoods.



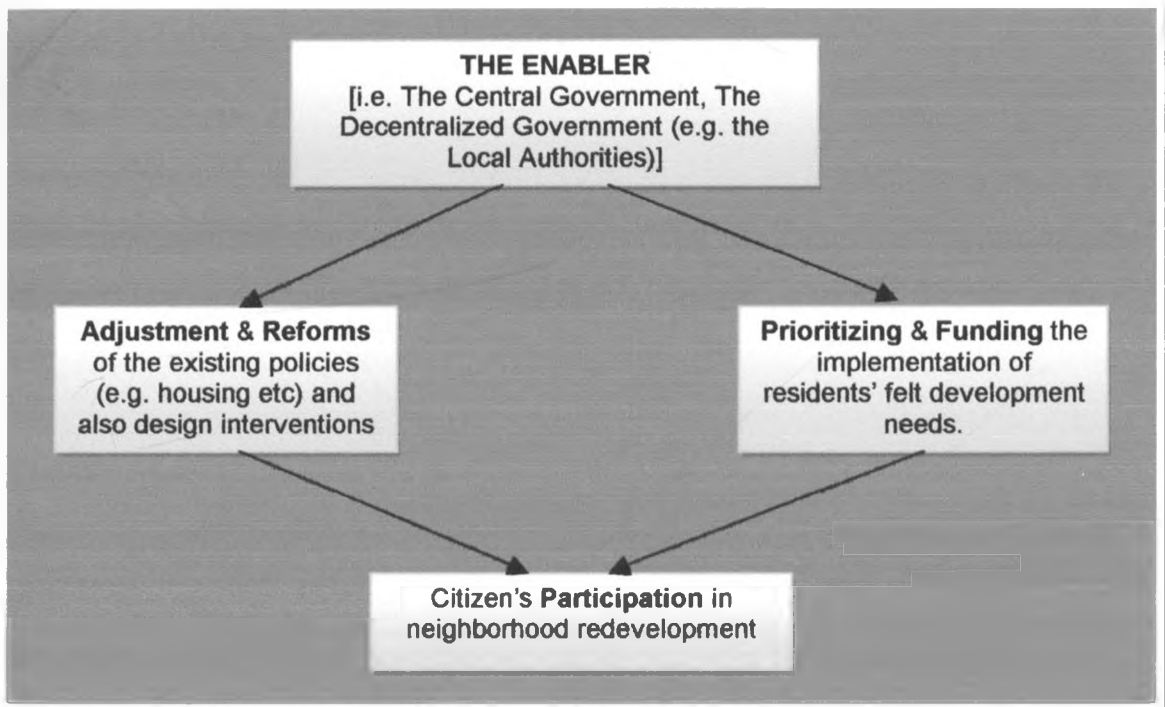
Source: Author, (2009)

As shown in figure 1.0 above, institutional arrangements, in particular as they relate to the structure and financing of the programme, and also how these arrangements relate to the inter-sectoral requirements of low in-come neighbourhoods intervention, and to realizing rights and access to land and shelter in particular the need for appropriate funding mechanisms and legal frameworks can result to unsustainable redevelopment of low in-come residential

neighbourhoods. Policy-making process is also a factor in the redevelopment of low in-come residential neighbourhoods. The challenge here is balancing technological expertise with civil society input, in particular the need to include civil society in the policy- making process. The design of the intervention process with regard to the integration of livelihoods, the involvement of community structures, and the appropriate technical solutions, in particular the need to involve community -based organizations (CBO's) and 'non governmental organizations (NGO's) is also a critical factor in achieving a sustainable informal housing improvement programmes.

2.2.2 The Enabler Approach

Figure 2: How best a government can harness citizen's potentials

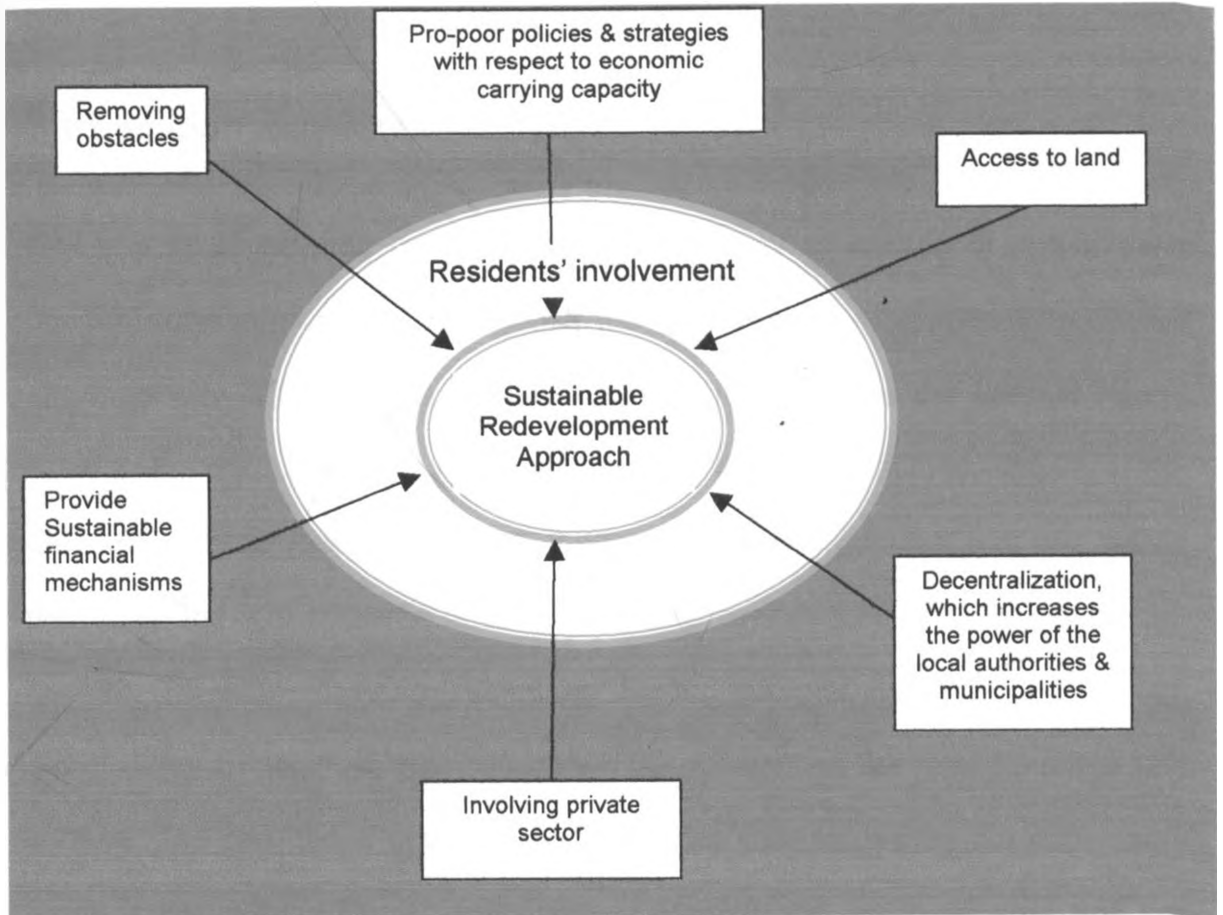


Source: Field Survey, (2009)

Figure 2 above shows a facilitation approach where the government or the City managers for that matter, takes cognizant of the residents' development needs and their priorities and then take the necessary measures to implement them by embracing the spirit of inclusion, evokes the principle of subsidiary by harnessing the economic potentials of its citizens and converting it into tangible gains by way of policy and design intervention adjustments and reforms. This would bring every stakeholder on board (to avoid incidences like 'haphazard housing development and any of the like). It should therefore be noted that without prompt exercise of these roles the government shall have failed in its mandate to tap the citizens' potentials to enhance their good living.

Below is the integrated conceptual framework for the sustainable redevelopment of low in-come residential neighborhoods.

Figure 3: Integrated Conceptual Framework to Sustainable Redevelopment of Low In-come Urban Residential Neighbourhoods.



Source: Author, 2009

CHAPTER THREE: BACKGROUND OF THE STUDY AREA

3.1 Location and Size of Kibera

Kibera slum is situated on the outskirts of Nairobi at latitude of -1.3167 and 36.7833 longitudes, 5,859 feet above the sea level. The settlement measures approximately 225 hectares. Its boundary to the north was the present Ngong Road to the north, Lang'ata Road to the south, Kenyatta National Hospital to the east and Jamhuri Park to the west. It has an estimated population of one million people on the 225 hectares of land with a resultant density of 4,000 people per hectare (Physical Planning Report on Kibera Informal Settlements Planning, 2002). Kibera constitute approximately 0.32 per cent of the total Nairobi's land surface. The neighbourhood is distinctly divided into two parts; the upper area which is the original Nubian settlement of Makina and the lower area that has been densely settled during the last two decades (Obudho, 1987). These villages include Lindi, Kisumu Ndogo, Soweto East, Soweto West, Makina, Kianda, Kambi Muru, Mashimoni, Gatwekera, Silanga, Laini Saba and the newly founded Raila Village. Laini Saba is densely populated with 95 per cent of the residents living below poverty line (UNCHS, 1999).

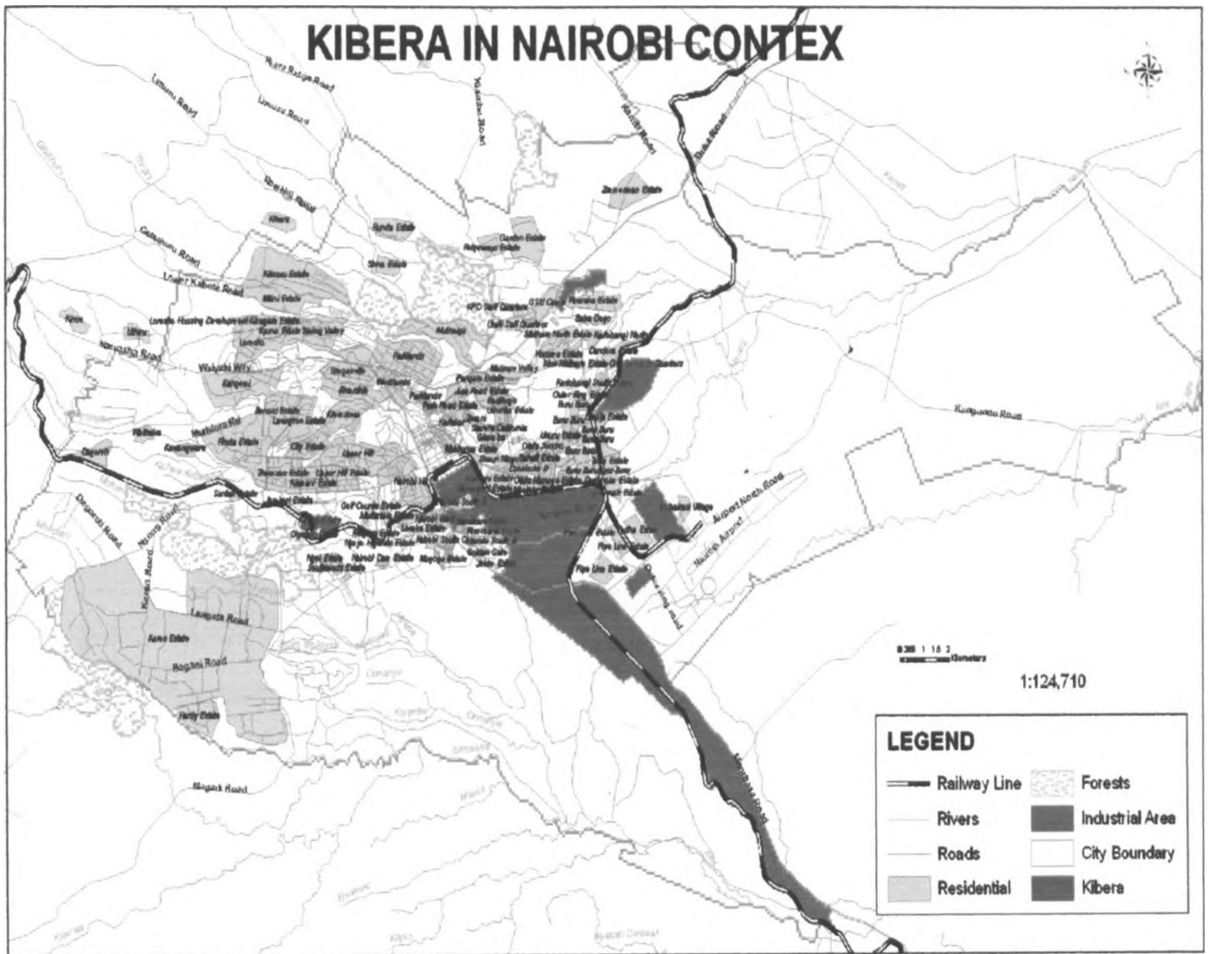
3.1.1. Historical Background

Kibera was allocated to the Nubian community of the then King's African Rifles and their descendants in 1904. The land was surveyed in 1917 and formally gazetted in 1918. The beneficiaries immediately named the area 'Kibra' meaning the jungle infested with wild animals, in the Nubian language, as it was part of the larger Nairobi National Park. The Nubians then created villages such as Makina, Soweto East, Soweto West, Mashimoni, Kianda, Kisumu Ndogo, Kambi Muru, Silanga, Lindi, Gatwekera, Raila and Laini Saba, which they developed according to their need and under the control of the colonial administration. In Kenya, their largest and most important settlement was and still is Kibera, which they embarked on developing from the bush they found over one century ago. They initiated a vibrant and very rich culture, including language, food, dress, dance and artefacts, all which have stood the test of time. Self employment at their village level provided essential retail goods and services such as shops, hawking of fruits and vegetables and water sales.

Soon after the Second World War, non-Nubians began to infiltrate the area as tenants of Nubians or squatters on vacant land. Kibera having developed at the periphery of the city, the Nubians were forbidden from building permanent structures. In the 1950's, the government finally became committed to develop the area and from 1961, the government has pursued a series of redevelopment schemes. The Nubians' houses have had to be demolished to pave way for better quality housing development by National Housing Corporation (NHC),

exemplified by Olympic Estate, Nyayo Estate, Highrise, Kibera/ Otiende and, Ngei Estate among others. However, Kibera is no longer the Nubian enclave it was before the 1930's as occasioned by its proximity to the city centre, industrial area and its location along Lang'ata and Ngong roads, the neighbourhood has various economic activities which have sprung up to cater for the residents. This has reduced the housing conditions, overstretched infrastructural services. As earlier stated, following the high density and lack of employment opportunities, significant percentage of residents have turned to small-scale businesses for livelihood sustenance. However, most of such activities are located on the railway line and roadsides.

Map 1: Kibera in the Context of Nairobi

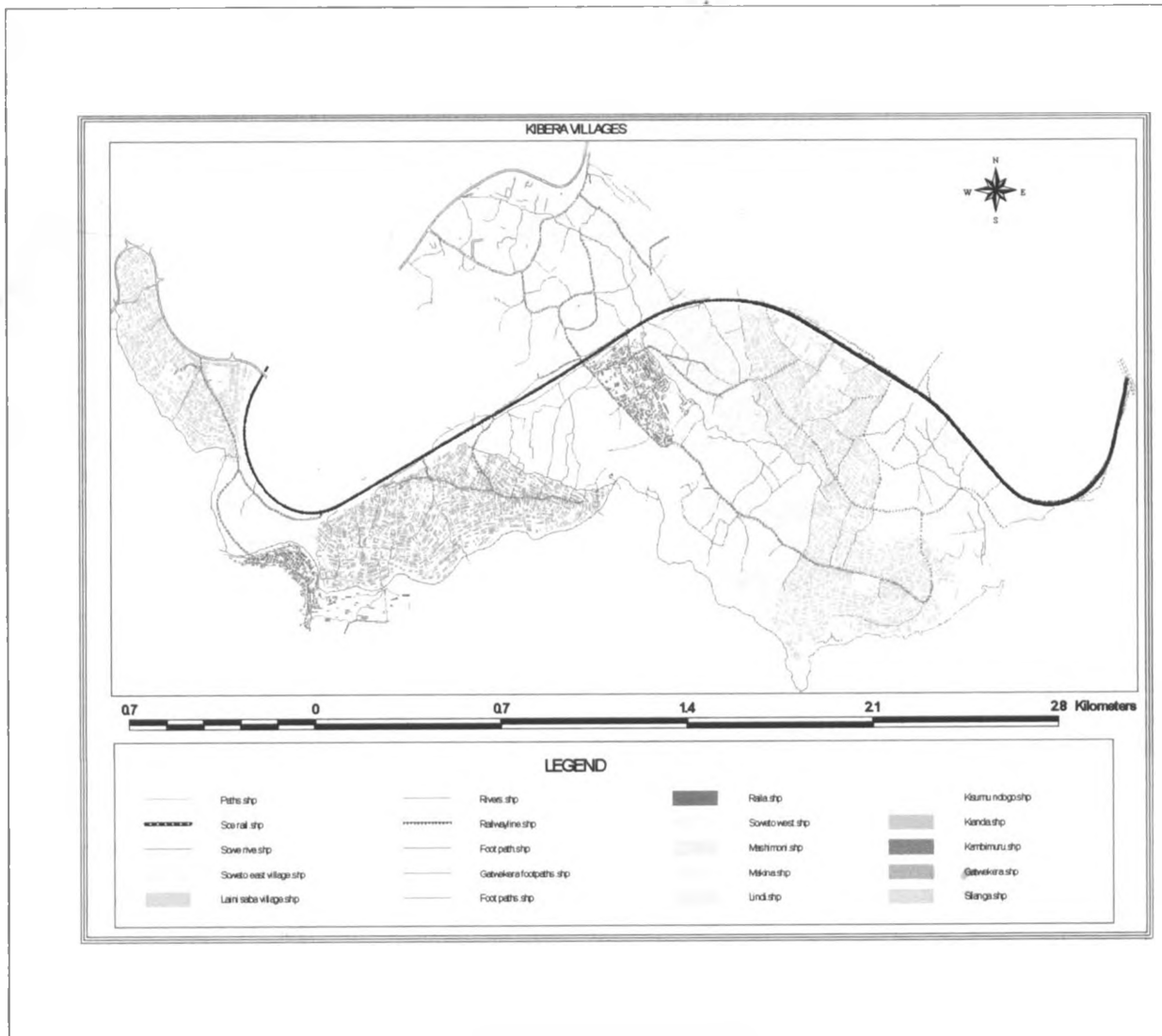


Source: (Field Survey, 2009)

Silanga is one of the 12 villages in Kibera slum, which is situated around 20 km from the central business District of Nairobi at latitude of -1.3167 and 36.7833 longitudes, 5,859 feet above the sea level. Silanga village measures approximately 21 hectares. It is bordered by Laini Saba village to the north, Nairobi dam to the south, Soweto East village to the east and Lindi Village to the west. It has an estimated population of 18,623 people on the 21 hectares of land with a resultant density of 887 people per hectare (Projected Kenya population

census, 1999). Silanga constitute approximately 9.2 per cent of the total Kibera's land surface. The population explosion in the slums like Silanga has resulted to unsustainable urban development, which is uncoordinated and unplanned. This is manifests itself in the form of: poor housing and squatter settlements, unemployment, deterioration of health conditions, poor transport and infrastructure services, and escalation of crime, social stress and ecological conflicts

Map 2: Villages in Kibera



Source: Field Survey, 2009.

3.2 Physical Characteristics of the Study Area.

3.2.1 Climatology and Vegetation:

The climate of Kibera presents a microclimatology to what is experienced in the whole of Nairobi. The city of Nairobi lies roughly one third degrees south of the equator, in a region that would be expected to have an equatorial type of climate. But due to its altitude above sea level, the climate has been generally placed in the category of low latitude highlands. It can be generalized that Nairobi lies in an equatorial climate regime that has been modified by altitude and has small diurnal and annual ranges of temperatures. In Nairobi, the hottest month has a daily mean temperature of 14°C after midnight while the hottest month has a daily mean maximum temperature of 12°C during the day as occasioned by the altitude of 5,000 to 6,000 feet above the sea level. Rainfall is divided between two rainy seasons: the short rains fall in November and early December, and the long rains between April and mid - June. Because it is virtually on the equator Kibera has a constant twelve hours daily daylight. The neighborhood's annual average rainfall of is approximately 950 mm per annum. There are occasional heavy downpours which result in the housing along the open drains being flooded. Although "Kibera" means forest, there is no vegetation. However, the slum is surrounded by the large and ever-green Ngong forest on the north and Jamhuri Park on the west

3.2.2 Drainage and Topography:

Lack of facilities for draining of waste and storm water in Silanga has resulted to intensive pollution of streams in the neighborhood. Drainage is poor and limited to major roads and paths. The drainage system in the settlement comprises of shallow open natural drains and manmade drains which are often used as dumping points of solid waste and sludge. Silanga area comprises of steep hills and river valley. These features have resulted in the railway line that cuts across the slum to maintain a steady path by cutting through a section of the hilly terrain creating steep trenches. The river valleys, on the other hand dissect the hills and valleys they drains to the Nairobi Dam that is on the periphery of the slum.

3.2.3 Soils:

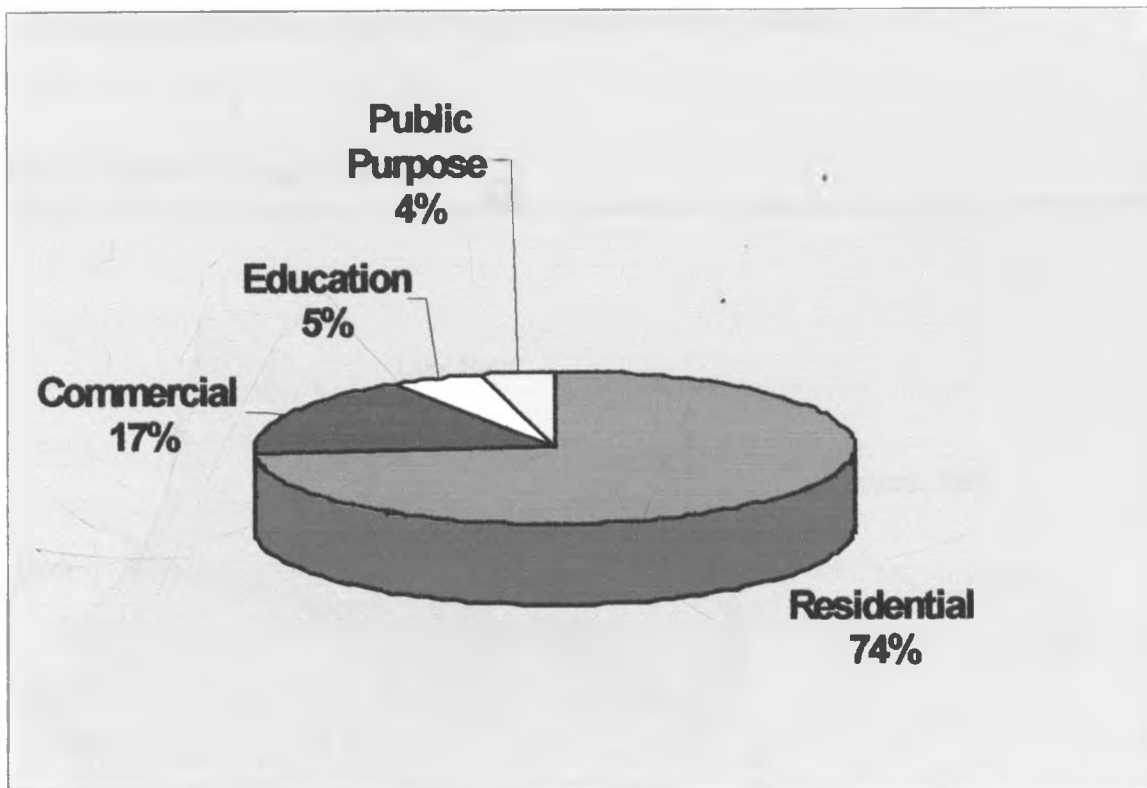
Silanga is mainly covered by loamy soils, which is good for agriculture. Most residents have turned to practicing small-scale urban agriculture and especially along the riverbanks. This exercise has not only helped boost food supply to the households within the slum but also outside the slum increasing the residents' income levels.

3.2.4 Land Use

There exist a number of grocery vending shops, which are at a walking distance of less than a minute from the housing units. They are aligned along major access roads. There is also education facilities mainly, privately owned. Other

land uses include dispensary as well as public purpose. The proportions of these land uses are shown in the figure below.

Figure 4: Land Use types in Silanga village

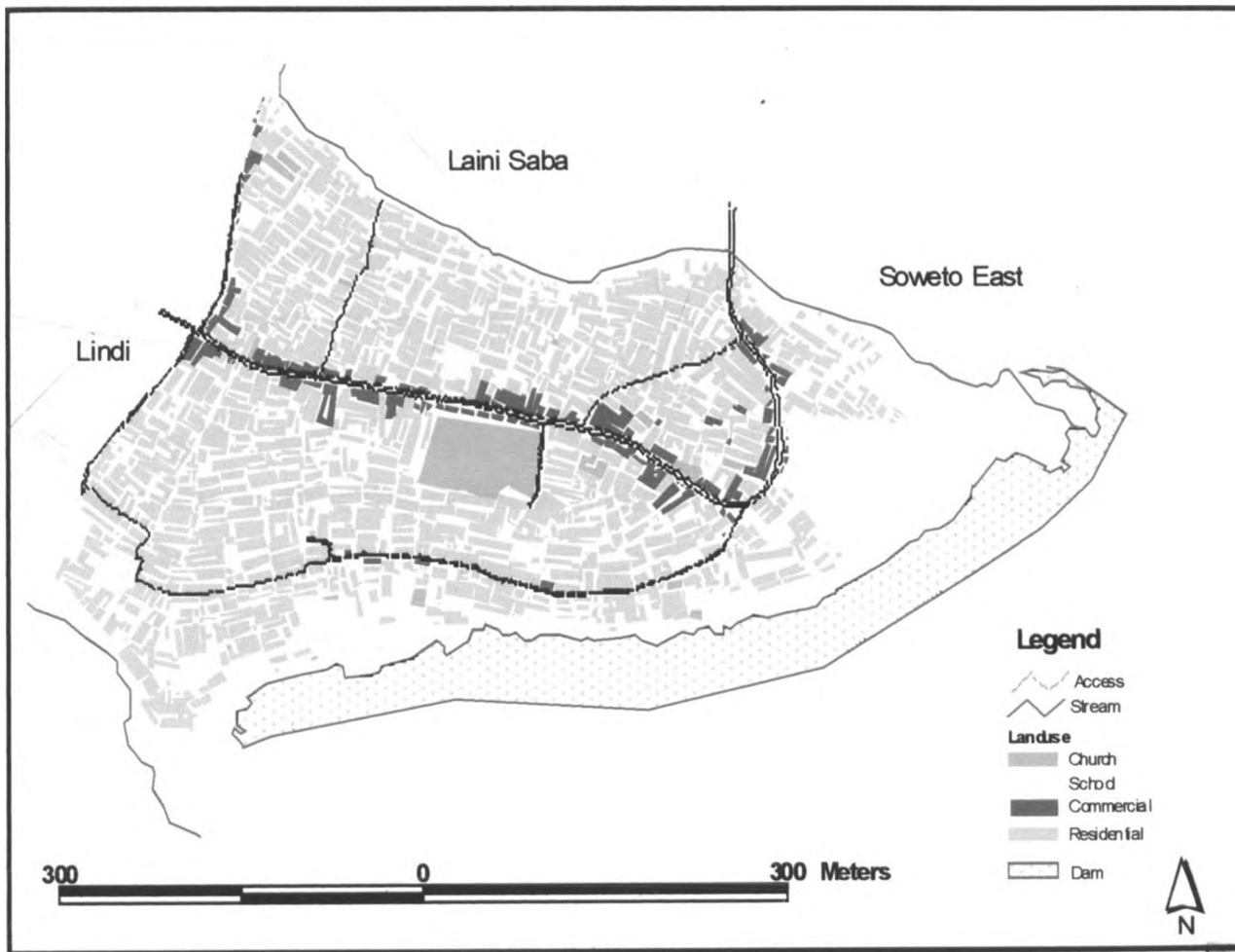


Source: Field Survey, (2009)

More than 70% of the structures within Silanga are used for residential purpose. However, other land use types do exist to complement residential land-use. These include commercial and public purpose which take up 17% and 4% respectively of land use within the settlement. Public purpose includes churches, health clinics, and public offices including political party offices. Commercial activities comprising small shops, bars video halls and individual vendors are located along the main roads and spines within the village.

Key public purpose facilities in Silanga include AMREF, Undugu society, the PCEA complex, Kenya Assemblies of God Church and St Luke Parish ACK. Schools include, Undugu Society, Dam Academy, Kibera Baptist Academy, Siloam Fellowship Academy and St Phillip School among others.

Map 3: Silanga village land uses



Source: Field Survey, (2009)

3.2.5 Water Supply:

Access to clean water is considered important in ensuring the health of the community. Many people especially children, within slums die from water borne diseases and this does impact negatively on the household well-being. Other implications of insufficient water supply include time taken especially by women to collect water from standpipes or other water sources. This not only reduces their time to attend to other household chores but also denies them time to engage in income generating activities to improve their well-being or status. The situation described above best illustrates the current status within Silanga. Communal water taps rented from Nairobi City Council by private vendors are the common source of water.

During the rainy season, water costs are reduced because inhabitants' tap water from their roofs, otherwise the price of water is four times the cost at which the council sells to the vendors (Lee-Smith and Syagga, 1990).

Plate 1: Communal Water tank



Source: (Field Survey, 2009)

Low in-come neighborhoods redevelopment needs to first focus on water and sanitation as these two have a direct bearing on community health and improvement will mean a healthy and productive community.

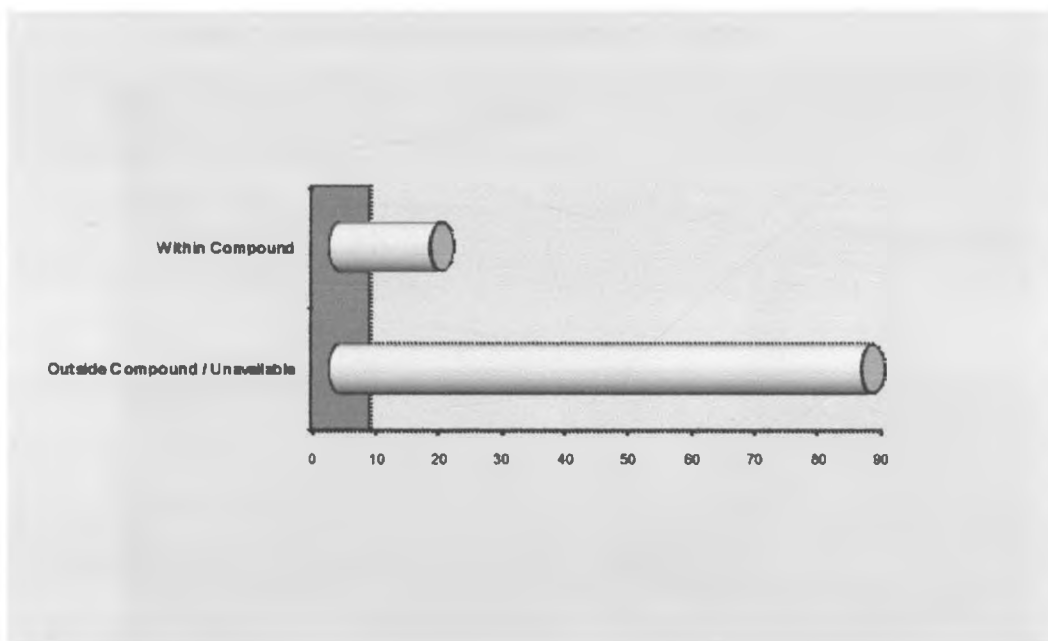
3.2.6 Human Waste Disposal

The lack of adequate sanitation coupled with lack of clean water is a major source of public health problems within Silanga village. Diseases like diahorrea and dysentery are easily spread in environments with poor drainage and

sanitation facilities. Poor excreta disposal will lead to the contamination of water sources as well as the general environment. Within Silanga, only 16% of the structures had on site pit latrines while 84% did not have the facility within the compound or relied on facilities located far from household (Urban Studio, 2007). The available toilets within the settlement were shared and at times residents would pay for the use of the latrines.

Self help groups like Ushirika and KISUG groups have joined hands with other local organizations to provide toilets. Toilet use is charged at Kshs 2 /= for each time one uses the facility. Due to lack of adequate facilities many community members are forced to use flying toilets. This is particularly evident near the dam and lower areas of the settlement.

Figure 5: Toilet availability in Silanga village



Source: Field Survey, (2009)

The existing latrines are made with mud and/or old iron sheets as the superstructure. The permanent latrines are provided by the community-based organizations working in the village.

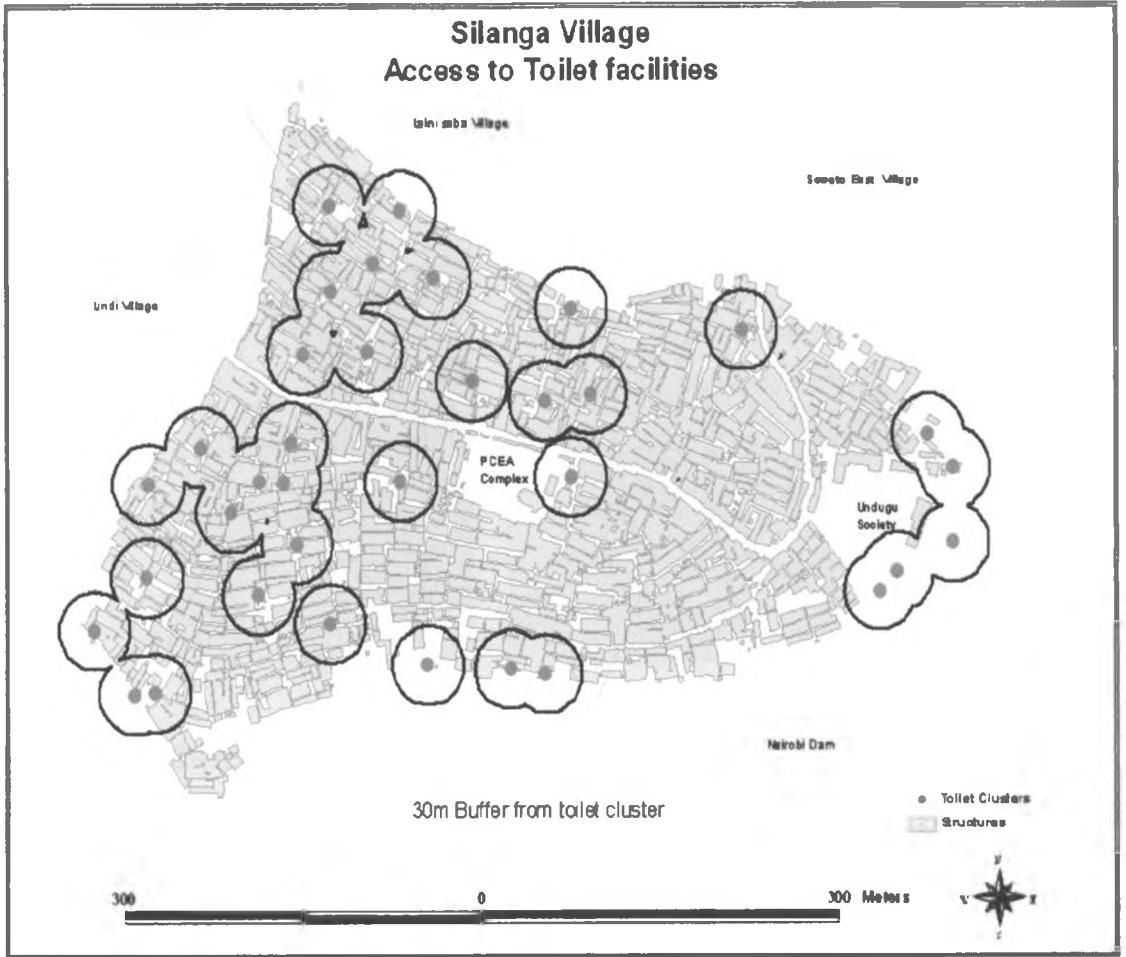
Plate 2: Mud-walled Latrine



Plate 3: Iron sheet Super-structure Latrine



Map 4: Spatial distribution of toilet facilities in Silanga village



Source: (Field Survey, 2009)

3.2.7 Sewage and Solid Waste Disposal:

There is no sewage disposal service in Silanga as detached pit latrines serving between 30 to 500 people is the predominant mode of waste disposal. The number does not allow for regular clean ups of the latrines. As such, they present an eyesore to the users. Alongside with this, there is also no organised mode of

refuse collection and disposal in the neighbourhood; instead the refuse is often burnt or thrown outside the dwelling.

Plate 4: Sewage flowing into River Nairobi,



Plate 5: Solid wastes outside a house



Many residents of Silanga dump directly on drainage channels or the nearby streams draining into Nairobi Dam. With the advent of rainfall these waste are carried downstream and have over the years led to the contamination of nearby water sources. The poor waste dumping practices may be attributed to lack of education, low environmental consciousness, and distance from containers or collection points and poor enforcement of the law against indiscriminate offenders by settlement committees and the local authority

3.2.8 Housing Typologies

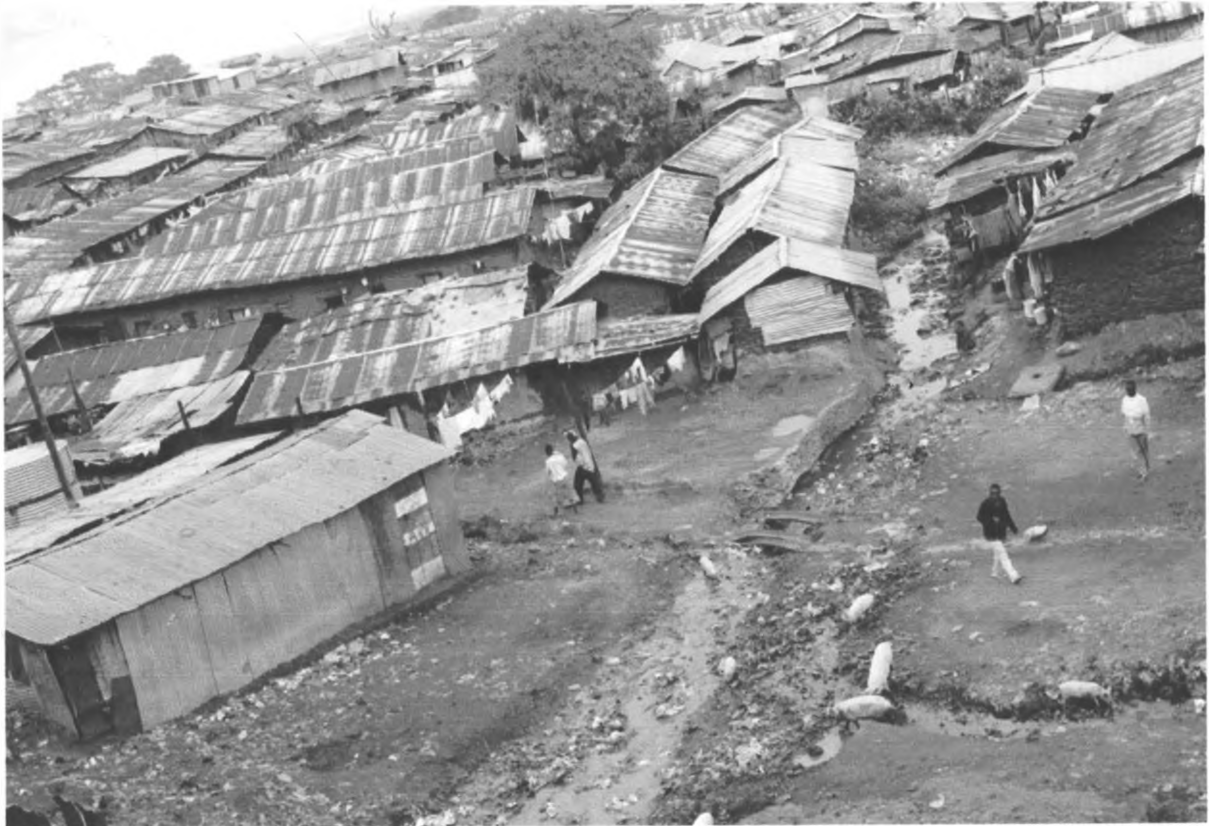
Housing is one of the key indicators used for defining a slum settlement. The durability of material as well as location in non-hazardous areas like riverbanks and steep slopes are some characteristic that may define whether a settlement is

classified as a slum. The material used for example should protect the occupants from weather extremes such as cold, heat or even flash floods.

Within Silanga, approximately 97% of the structures are semi permanent having being built of material likes wattle and mud. Less than 3% of the structures are constructed with more durable material such as stone and concrete. Owing to the nature of land ownership, the structure owners who in this case lack documents to prove ownership of the land have deliberately not put permanent structures for fear of eviction. Structures located near the Nairobi Dam and Ngong River is prone to flooding and has during rainy seasons been damaged owing to raise in water levels.

The living condition in Silanga presents high development densities, poor sanitation and water quality, low access to basic social services. Further, residents lack legal rights like security of tenure on land, which should enhance investment in basic services. Construction is largely semi-permanent (mud and wattle walls and corrugated iron sheets and polythene) undertaken with higher densities.

Plate 6: Housing conditions in Silanga village



3.2.9 Roads and Electricity

Generally, there are no adaptive public roads within Silanga. Considering that most businesses are along these dusty pathways, there is a lot of congestion making vehicular manoeuvring difficult. However, Silanga is surrounded by major roads that feed the affluent estates of Lang'ata, Woodley, Jamhuri, Karen and Ngong. There is no power supply in the interior parts of Silanga and most of the residents use kerosene lamps and charcoal to light their houses. Reading at night becomes difficult, therefore, for those children that live in Silanga. The poor state and/ or lack of the above infrastructure have negatively impacted on the

economic welfare of the residents. Coupled with this, lack of security of tenure on land necessitates the mushrooming of shanty structures consequently congesting the neighborhood devoid of essential basic services.

3.2.10 Education and Healthcare

There are various private pre-unit, nursery and primary schools within walking distance in the neighbourhood. Private clinics and over-the-counter drug purchase points are numerous. Such clinics are, however, first-aid providers and residents have to walk for about half hour distance for proper medical attention either at the Kenyatta National Hospital, Lang'ata Health Centre or Mbagathi District hospital.

3.2.11 Institutional Infrastructure for Development

Map 5: Key Infrastructure in Silanga village



Source: (Field Survey, 2009)

Politically, Silanga is a volatile neighbourhood as occasioned by the neighbourhood's historical origin, which has strong links to Nubian squatters who were settled on this land after Second World War by the British Colonial government. On the other hand, there are squatters who invaded the land as a means of survival. The official Kenyan Government position is that this is government land and until recently, the land tenure policy regarding the neighbourhood is that no private individual should develop or invest on such land. The government has therefore not developed any infrastructure. This scenario pits the tenants of Silanga against developers who in most cases are not obliged to put up proper water and sanitation facilities among other community services in the area to match the rent they collect from the housing units.

CHAPTER FOUR: KEY FINDINGS AND DISCUSSIONS

4.1 Government's Approaches to Redeveloping Low In-Come Urban Residential Neighbourhoods.

The low in-come urban residential neighbourhoods redevelopment programmes in Kenya whether financed by the Government, donor agency or the private sector through the site and service schemes, settlement upgrading, tenant purchase or mortgage schemes have been on the basis of owner occupation or asset creation. This was the case in all the shelter projects previously discussed in chapter two. The rentals housing schemes had been previously the domain of local authorities in the 1960s and 1970s but were abandoned in favour of owner-occupation since the onset of site and service schemes and settlement upgrading programmes (Syagga, 2000).

Kenya's strategies towards redevelopment of low in-come neighbourhoods have not in many instances, achieved the goal of providing decent housing to the urban poor. The first strategy employed by the government was the sites and service schemes, which involved centralized intervention, executed by the central government through the World Bank. It advocated for the clearance of centrally located slums and their relocation to newly serviced plots often outside the existing urbanized areas. It stressed on the shared responsibilities between the slum dwellers and the government. It was heavily criticized especially its demolition and evictions components. This resulted to slum dwellers being relocated to some other parts of the city and in other instances, slum dwellers being left in "limbo" without alternative housing and land arrangements or compensation. There was also low number of the beneficiaries; the lack of

understanding and clarity around the role of the private sector; the lack of planning around the location of new serviced plots, low or non-existent standards, and the failure to achieve the cost recovery.

After the failure of the sites and service scheme, the government has since adopted the upgrading strategy. This strategy emphasizes the improvement of communal infrastructure and services within the established slums. It targets the improvement of basic services that are lacking or decaying in slum areas. The strategy avoids demolition. In areas where the strategy has been applied, there have been noted failures, which include financial commitment. The implementation and financing of the strategy is dependent on the foreign agencies, which over time gradually reduce their financial support to the various projects. The result is that local government cannot sustain the financial cost of upgrading. As the funding dries up, many programmes are suspended and the lack of income means that infrastructure and services cannot be created, completed, sustained or maintained.

The upgrading strategy has not also produced socio-economic impacts projected. The program has had no contribution to poverty reduction or problems related to unemployment and land security. Ironically improving infrastructure and services had lead to an increase in real estate value, thus encouraging speculation. Low in-come dwellers have therefore shifted out of the upgraded areas for the benefit of middle and high-class urban dwellers. In short the upgrading programmes have since failed to integrate security of tenure with employment or in-come-enhancing activities.

4.1.1 Past and Present Efforts in the Redevelopment of Kibera

Nairobi's 200 slums are among the densest, insecure and unsanitary in all of Africa, and Kibera in Nairobi has the unfortunate distinction of being the worst of the worst. It is regularly described as the worst slum on the planet. It houses somewhere between 800,000 and 1.2 million people nearly one quarter of Nairobi's population in just 630 acres located approximately four miles from Nairobi's central business district (Michelle, 2007). The living conditions are harsh and profoundly unforgiving. The deprivations people face on a daily basis are fundamental: severe overcrowding, terrible sanitation, chronic disease, malnutrition, and nighttime insecurity. These conditions have evolved over decades of indifference and neglect by both municipal and national governments.

Various non-governmental organizations (NGOs), many with the World Bank's help; have sponsored slum-upgrading projects over the past several decades with varying degrees of impact and hardly any unqualified success (Michelle, 2007). The government has also taken various initiatives towards improving the lives of the residents of Kibera. In the 1990s, the government initiated an ambitious project in Kibera with the aim of improving the housing status of the Kibera residents. The project was later named the Nyayo High-rise Project given the housing typologies that were built. The standard of the houses were of the middle-class and therefore the typical residents of Kibera could not afford to live in such houses. The result was that the people outside Kibera who could afford to pay the new rent after the property value went high as a result of improvement occupied the houses.

Plate 7: Nyayo High-rise housing



(Source: Field Survey, 2009)

4.1.1.1 Lessons Learned

The Affordability, which seemed to have been determined before the redevelopment began, was the major problem for the poor Kibera residents. Another drawback faced in the Nyayo High-rise project was the high standards set for housing, infrastructure and service provision. Although lower standards were applied, they were still beyond the means of the poor Kibera residents, for whom they were intended. To complicate matters even further, upgrading was permeated by political interests that distorted the allocation of infill plots (East African Standard, 2007). Rather than being allocated to the displaced poor, the plots found their way into the hands of non-target groups that had political influence.

4.1.2 The Kenya Slum Upgrading Program (KENSUP)

Finally acknowledging the problem's severity and persistence, Kenya's national government took definitive action in 2002 by creating the Kenya Slum Upgrading Program (KENSUP). This national office focuses on implementing projects that are sustainable, inclusive, democratic, accountable, and transparent and that will provide communities with improved housing and access to basic services, secure tenure, and opportunities to generate income. Currently, KENSUP is in Kibera doing an upgrading project with a decanting site in Soweto East. The project, just like the Nyayo High-rise one is ensnared in a web of confusion. Residents say there is no adequate information on a couple of issues (East African Standard, 2007). The project involves construction of flats to house more people in less space, thus ensuring room is created for other essential amenities like markets, schools and hospitals. The project, a collaboration between the Government and UN Habitat, started in 2003 and aims at relocating more than 20,000 residents from Kibera's Soweto East village to a site in Lang'ata to give room for the construction of decent houses.

The East Africa Standard (2007) reported a number of controversies arising from the on-going project in Kibera's Soweto East village. Key among the controversial issues includes the rent. Most Soweto residents pay around KSh.500 per month and they may not be willing - or able - to pay more in their new homes. There have also been allegations that non-Kibera residents had been irregularly chosen to benefit from the low cost houses. Politicians and programme officials are accused of irregularly registering 'non-residents'.

Structure owners, who are also earmarked to benefit from the project, are demanding that they benefit according to the number of structures they own whereas the Housing Permanent Secretary has repeatedly stated that despite the number of structures one currently owns; only a single house will be allocated to an individual. It is now officially illegal to buy structures in the slum (East African Standard, 2007). The East African Standard (2007), further reports that according to Government sources, the land Kibera stands on belongs to it and structure owners have been earning from tax-free rent. They should, therefore, not demand more compensation from the Kensup project. Politicians and shrewd land grabbers who have illegally dished out land to vulnerable tenants thus raking in immense profits over the years are likely to lose in the new arrangement.

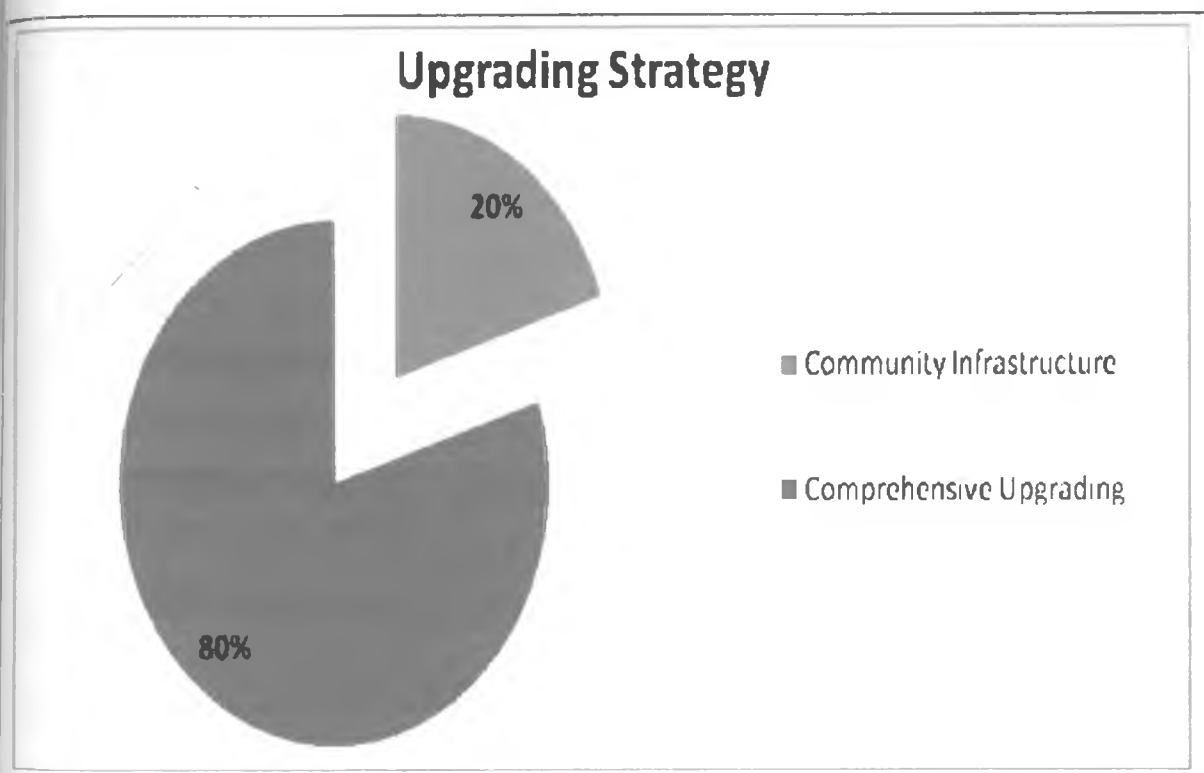
Kibera residents are apprehensive that the project may end up evicting them if the costs of the units shoot up. They are using the Nyayo High-rise estate as a pointer, saying that it was intended to resettle the poor but got hijacked by 'rich outsiders'. According to the East African Standard (2007), those privy to the project say the intended beneficiaries have proposed rent of KSh.500 a unit a month but it is unclear whether the Government would agree to the proposal. To ensure a participatory approach, the Government had delegated the duty of discussing rent and other relocation modalities to the Settlement Executive Committee (SEC). The committee was composed of area tenants, representatives from NGOs, community and faith based organizations, structure owners and the Government. However, residents rejected it. Instead, they formed a parallel committee, the People's Settlement Forum (PSF). The Government eventually merged the two committees.

4.2 Silanga Residents' Perceptions on the Redevelopment of Low Income Residential Neighbourhoods.

4.2.1: Redevelopment Implementation

When interrogated the respondents of Silanga informal settlement had their hierarchy of how they would wish the redevelopment to be implemented. First on the list was comprehensive upgrading, which involved starting from scratch. Only twenty per cent were for community infrastructure as their priority as shown in the pie chart below.

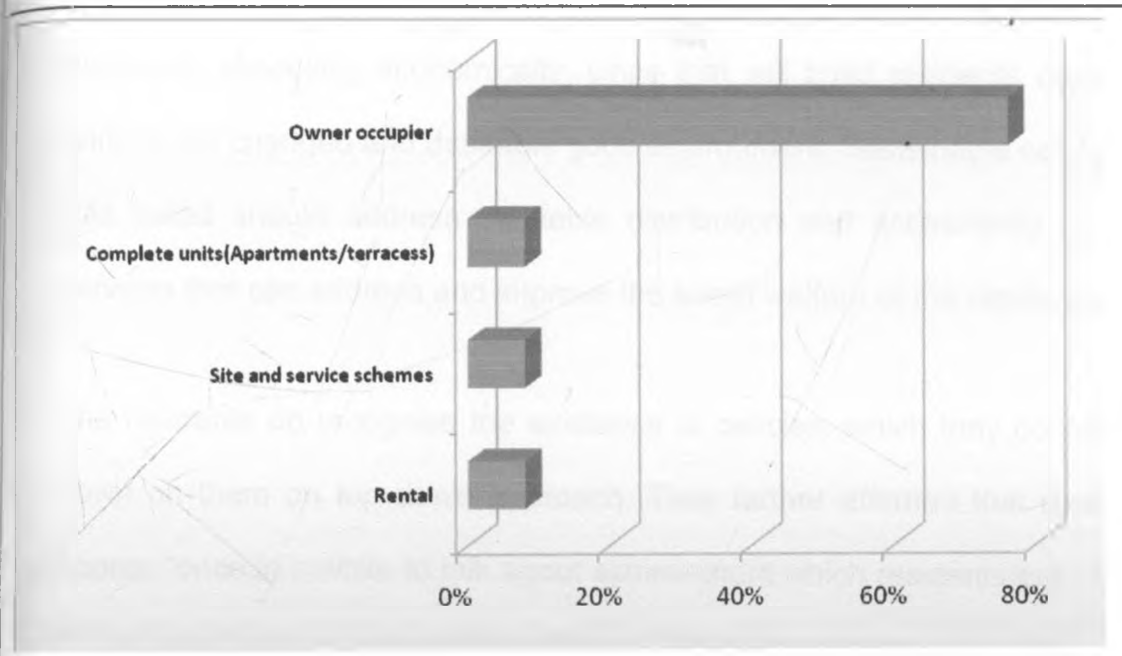
Figure 6: Upgrading Strategy of the Silanga residents



Source: Field Survey, (2009).

When asked the housing upgrading strategy they would wish for, 76% of the interviewees leaned towards owner occupier housing typology as shown in the graph below. Most of them were in preference of two and three bedroom houses, 59% and 33% respectively; only 8% were in preference of one bedroom self contained houses.

Figure 7: Housing Preferences by Silanga residents



Source: Field Survey, (2009)

Material loans and mortgages were the only forms of financial arrangements proposed by the respondents interviewed in the order of 21% and 79% respectively. Options like donor funding, personal savings and government funding financial arrangements were however not appealing to the interviewees.

In terms of service provision, respondents in Silanga were most preference of provision of basic amenities, only 15% leaned towards provision of infrastructure, as their priority.

4.2.2: Residents' Recommendations on Sustainable Redevelopment

The respondents identified absolute poverty as the major worry of the residents in Silanga. 'People choose to live under the prevailing conditions in the settlement because they are poor and cannot afford housing in elsewhere' said one respondent". Respondents reckoned that for Neighbourhood to be redeveloped to the desired status there is need to address how the changed environment will enhance their livelihood, especially economically, since that will build residents capacity to afford living in the changed and desirable good environment. Sustainable neighbourhoods as was noted should address equitable distribution and accessibility of facilities and services that can address and improve the social welfare of the residents.

The residents do recognise the existence of policies, which they contend are forced down on them on top down approach. They further affirmed that mostly politicians appear "once in a while to talk about achievement which residents are unable to see". At the local scene, the residents affirmed that only a selected few who, mainly friends to the political and administrative class are consulted.

The Silanga residents are sceptical about the process of neighbourhood improvement, which they perceived to encouraging influx of more people from other settlements into the neighbourhood. The residents do contend that the process of neighbourhood redevelopment should start with the provision of basic services such as public toilets, bathrooms before shelter improvement to allow psychological adjustments.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Emanating from the study findings, it is clear that major obstacles to sustainable redevelopment of low in-come neighbourhoods still remains: lack of actively involving the beneficiaries during the initial policy formulation stage; inadequate financial mechanisms, lack of access to land, cumbersome shelter delivery systems, lack of communal finance for shelter development and maintenance, high cost of building materials, insufficient infrastructure provision, maintenance and rehabilitation mechanisms, high urbanisation rate, environmental degradation and weak institutional co-ordination and failure to include the private organizations as well as civil society in the redevelopment programmes. As was noted by Mbogua, (1994), rapid urbanisation and poverty, which is wide spread among the low in-come earners is the biggest limitation to sustainable neighbourhood redevelopment

It is also clear that major issues and problems in low in-come neighbourhoods are concerned with poverty. For instance, housing problem in Silanga informal settlement stems from poverty. There is need therefore to find renewed efforts to combat poverty and more importantly to involve the very people who are concerned. These residents live under poor conditions and it is unfortunate that despite that there are many efforts and plans to assist them, none of them are

aware of such plans or participate in the development of such plans. This brings the question then, of how are policies formulated without the involvement of the very people concerned.

In its effort to provide a sustainable framework for redeveloping low in-come neighbourhoods, the Kenyan government has so far applied two strategies, which in many cases have failed to solve the afore-mentioned problems. This therefore calls for a paradigm shift in strategies aimed at redeveloping low in-come neighbourhoods in a sustainable manner, which is inclusive, ensures residents have access to land, improves the socio-economic status of the residents and finally ensures that the residents are facilitated to maintain the improved infrastructure and services.

5.2: Recommendations

In view of the study findings, the study proposes two strategy frameworks for sustainably redeveloping low in-come residential neighbourhoods. These strategies are grouped into: Financial frameworks, and policy and Legislative Reforms frameworks, which are discussed below: -

5.2.1: Financial Strategies and Neighbourhood Redevelopment Frameworks

In Nairobi with real estate prices so high that even the middle classes find it extremely difficult to afford a house, it is entirely unreasonable to expect the poor to buy land. Instead, what is more realistic is for the poor to contribute towards

the construction of their homes, once they have acquired the land for free or at some nominal cost as facilitated by the government. Therefore, the proposed financial strategy focuses on two aspects – building the financial assets and capacities of the low in-come earners and building the financial management skills of the affected residents. These financial capabilities are expected to strengthen the ability of the urban poor to engage in meaningful partnerships with city and state authorities as well as formal financial institutions, when they are upgrading their homes at the same location or being resettled at a different location.

5.2.1.1 Building Financial Assets

(i) Savings and Credit

The study proposes the creation of Low In-come Neighbourhood Associations, which draws its membership from the residents. The association is expected to encourage its members to save on a daily basis and, to provide credit for crises, consumption and income generation loans. This fulfils two main objectives – it builds the asset base of communities and savings can eventually be used to act as collateral or a down payment when applying for a housing loan and second, it inculcates a regular habit of savings which demonstrates creditworthiness and financial reliability which is understandable and acceptable to formal institutions and a loan.

The Low In-come Neighbourhood Associations with the financial support from the government through KENSUP can provide a number of loans to its members.

These loans are: -

- a. In-come generation loans, which should be given to provide working capital for starting and maintaining small and petty businesses. These loans are to be repaid at agreed interest rates.
- b. Crisis credit and consumption loan: For any credit program to be really helpful, it has to include in its loan portfolio credit for personal as well as emergency needs. Timely credit in cases of accidents is as important for the poor communities as credit for entrepreneurial ventures. A service charge can be charged on this loan.
- c. House repair loans: these loans should be for temporary repairs (e.g. water proofing against rains).

(ii) Investing in Mutual Funds

Another instrument to build the financial base of the urban poor is for them to invest in mutual funds or in safe financial ventures that the market offers. There is need for the government to establish a Unit Trust of Kenya's Small Investor's Scheme to provide the low in-come earners with an opportunity of saving for their housing improvements. The government can set aside a Small Investor Fund in its annual budgetary allocation to assist low in-come earners in building their own houses.

(iii) Saving for Maintenance Expenses and Slum Sanitation

The researcher believes that once the government provides housing or infrastructure services, communities must be prepared to invest in maintaining these assets appropriately. For instance, when communities move into their new tenements, they are expected to cover all future maintenance costs. Since this sum is far larger than their outgoings to maintain their informal house, the researcher proposes that the residents associations to encourage its members save certain money towards maintenance costs and sanitation services. The costs of maintenance are to be met by monthly contributions from user-families and collections from passers-by who use the facilities.

5.2.1.2 Building Financial Management Skills

The study proposes that the government to build capacity of the leaders of the Low In-come Neighbourhoods Associations in managing savings and credits. It is expected that through capacity building, the community leaders will be equipped with the financial tools of savings and credit that will strengthen the financial skills of the leaders and assists them, later, in dialogue and negotiation with the state and other institutions.

5.2.1.3 Community-Led Infrastructure Financing Facility (CLIFF)

The development of safe, secure shelter and its associated infrastructure (safe water, sanitation, access roads and energy) to meet the needs of the urban poor requires capital financing, which the majority of municipalities in developing countries find great difficulty in mobilising. This presents a real challenge when

collectives of the urban poor become increasingly organised, developing the capacity to manage slum upgrading, resettlement and infrastructure initiatives. Research carried out in the Bridging the Finance Gap in Housing and Infrastructure project coordinated by Homeless International (a UK based NGO), and funded by the UK Government's Department for International Development, has shown that community-driven initiatives in infrastructure and housing do have the potential for significant scaling up. However lack of access to capital financing restricts the ability of communities to use the capacities they have developed in a manner that benefits large numbers of the poor as well as cities as a whole. Unfortunately this gap cannot easily be met using micro-finance, as the housing and infrastructure solutions required usually necessitate a collective rather than individual response, with an emphasis on area upgrading rather than simply the improvement of individual units. While micro-finance services have been expanded and successfully used to stimulate small enterprise and individual housing improvement through the provision of short-term loans, there is a chronic lack of medium term credit available for major slum upgrading, resettlement and infrastructure investment by the poor.

To address this challenge, Homeless International, in collaboration with SPARC in India and other partner organizations, established a Guarantee Fund in 1996, using deposits from UK housing associations to secure local currency loans from banks in India and Bolivia for organizations undertaking slum upgrading and improvement work. CLIFF has been designed to address poverty reduction objectives by facilitating the transfer of funds directly to community organisations

implementing housing and infrastructure initiatives developed by poor communities in urban areas. In particular CLIFF functions as a financial catalyst in slum upgrading by providing strategic support for housing and infrastructure projects that have the potential for scaling-up to city-level interventions.

CLIFF is a financing facility designed to help organizations of the urban poor in developing countries to carry out and scale up community-driven infrastructure, housing and urban services initiatives at city level, in conjunction with municipal authorities and the private sector (including banks and landowners). CLIFF therefore provides the opportunity for the NGOs and CBOs working in the slums of Kenya to actually participate in, lead and design the upgrading of the slum houses. In view of this, there is need for interested organizations in Kenya to seek partnership with Homeless International who provides guarantee for the private organizations to invest in low-cost housing. It is also upon the Kenyan government to advantage of this opportunity to negotiate for this partnership between the private investors and the international donors.

5.2.3 Policy and Legislative Reforms Framework

Under this framework, the study proposes a number of strategies for redeveloping low in-come residential neighbourhoods. These include: decentralization and centralization; privatization and public investment; deregulation and new regulations; demand-driven and supply-driven development strategies. These strategies are discussed below.

5.2.3.1 Decentralization and Centralization strategies

The government strategies for redeveloping low in-come settlements have been centralized with no or limited involvement of the private organizations. The exclusive centralized approach has failed to solve the housing problems of the low in-come earners and therefore there is need for the government to attract private investors and expertise to assist it in this vital endeavor. The government can encourage the involvement of NGOs and Community Co-operatives in the redevelopment programmes by providing them with special incentives and negotiating for them financial guarantee from donors such as Homeless International through CLIFF programme. Government through KENSUP should coordinate and monitor progress of redevelopment projects and operate on a single-window clearance basis for faster approval of such projects. The government can also arbitrate disputes regarding the distribution of gains in redevelopment projects.

5.2.3.2 Privatisation and Public Investment Strategy

In Kenya, as in most of the developing world, there is a lack of formal institutions to provide construction finance. Furthermore, slum land is likely to be regarded as tricky collateral by most lenders. Traditionally, construction activity has been financed by capital from buyers, either speculators or end-users. The industry refers to this as "pre-sale." But in the context of slum redevelopment, developers claim that it is difficult to arrange for pre-sale financing, as the projects are perceived as too risky. There is need therefore for the government to create

special funding for redeveloping low in-come settlements, which can be easily accessed by private developers and/or landowners. Furthermore, the central government should play a key role in developing secondary markets in real estate, to enhance the lending ability and liquidity of primary lenders that lend to developers and homebuyers. The central government should also play the pivotal role in developing institutional insurance systems to safeguard lenders.

5.2.3.3 Deregulation and New Regulations Strategies

To facilitate redevelopment of low in-come neighborhoods, there is need for the government to revise many land development regulations. It should change land use plans, and relax, and even remove, some building code requirements. The design of the proposed houses should reflect the residents' cultural values and aspirations, economic status and their technological know-how.

5.2.3.4 Demand-driven and Supply-driven Development Strategies

A defining characteristic of the low in-come settlement strategies in Kenya is that it is a government-sponsored initiative (supply-driven strategy). However, the strategy is a major departure from the expected demand-side preference of slum and low in-come neighbourhood dwellers for the neighbourhood improvement through in-situ upgrading. The demand-driven redevelopment strategy recognizes the preference of the beneficiaries living in the same location and therefore the redevelopment strategy in Kenya should be demand-driven and not the one imposed by the government on the residents.

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Appendix 1: Household Questionnaire

Questionnaire Number

Respondent's name (optional)

Sex Age

Education Level

- 01 – None
- 02 – Primary
- 03 – Secondary
- 04 – Middle College
- 05 - University

A. HOUSEHOLD INFORMATION

Original type of the House	Number of people living in the House	Name	Age Years	Sex	Relationship to the H/Hold Head	Occupation	Income Bracket
1. One-roomed							
2. Two-roomed							
3. Three-roomed							

Other households in the dwelling unit

Number of families in the Dwelling Unit	Number of people living in the House

Main household's expenditures?

Item	Per week in Kshs.	Per month in Kshs.	Per year in Kshs.
Food and drink	√		
Clothing			√
Cooking gas/coal/fire wood		√	
Taxes			√
Rent		√	

Education, medical			√
Saving (equb)		√	
Mortgage building loan		√	
Transport	√		
Electricity, water		√	
Building maintenance			√
Other expenditure			
Total			

Household's main source of income	How much per month
01 – Govt. Employee	
02 – Private Employee	
03 – Own Business	
04 – Others (Specify)	

A. Identification of Informal Settlement

1. What is the name of this settlement?

2. What is the nature of housing /structure typologies of this settlement (Participant observation)-----

3. What is the nature of ownership of this structure you are living in?

01 Rental

02 Own-occupied

03 Others-----

4. If you pay rent, how much do you pay per month? _____

5. How long have you lived in this unit? _____

6. What was your status in your previous dwelling?

01 – Tenant

02 – Owner

03 – Given accommodation by someone

7. Why did you move to this unit?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

8. What do you like most about this unit?

9. What do you like least about this unit?

10. What problems do you face in this settlement?

B. Economic Characteristics

11. What was your total household expenditure last month?

12. What was the total household income in KSh last month (including all sources)

- 01. Less than 2,000
- 02. 2,001-4,000
- 03. 4,001-6,000
- 04. 6,001-12,000
- 05. 12,001-15,000
- 06. 15,001-20,000
- 07. 20,001-25,000
- 08. 25,001-30,000
- 09. 30,001-40,000
- 10. 40,001-50,000

11, Above 50,000

12. Don't Know

C. Settlement Redevelopment Programme

13. Suppose there is a plan to upgrade this settlement, would you be willing to participate in the programme?

01. Yes

02. No

14. If Yes, in what way will you participate?

15. If No above, give reasons

18. What upgrading strategy would you prefer?

01 Community infrastructure

02 titling

03 Comprehensive upgrading

04 Incremental approach

19. Which dwelling types would you prefer?

01 (rental/owner-occupation)

02 Site and service schemes

03 Complete units (apartments/terraces)

20. What type of house would you like to live in?

01 Single rooms with shared toilets

02 Double room with shared toilets

03 1 bedroom self-contained

04 2 bedroom self-contained

05 3 bedroom self-contained

21. Suppose the upgrading is gradual, what would be the order you would want the services to be provided?

23. What kind of financial arrangements would you like?

- 01 Material loans
- 02 Mortgages
- 03 Others-----

24. What is your opinion concerning the government's strategies in redeveloping Kibera?

25. What changes would you suggest in the future redevelopment strategies?

THANK YOU FOR YOUR TIME

Appendix 2. Key Informant Guide- Kenya Slum Upgrading Programme (KENSUP).

1. What are the objectives of KENSUP?
2. What projects have you engaged in since the inception of this programme?
3. What have been the impacts of the above mentioned projects?
4. What upgrading strategies is the programme applying currently?
5. What are some of the advantages of the mentioned strategies?
6. What are the limitations of the upgrading strategies you are applying?
7. Are there other upgrading strategies the programme can apply?
8. If yes, please explain.

Thank you for your time.