



**UNIVERSITY OF NAIROBI**

**DEPARTMENT OF ARCHITECTURE AND BUILDING SCIENCE**

**SCHOOL OF THE BUILT ENVIRONMENT**

**CHALLENGES TO INNER CITY REDEVELOPMENT IN NAIROBI:  
THE CASE OF NGARA**

**BY**

**CHRISTOPHER MATERE KHAOYA**

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REQUIREMENTS FOR THE MASTER OF URBAN MANAGEMENT DEGREE OF  
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**2011**



**DECLARATION**

I **KHAOYA CHRISTOPHER MATERE**, hereby declare that this research project is my original work and has not been presented for a degree in any other University

SIGNATURE-----

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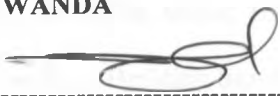
This project has been submitted with our approval as University Supervisors

**DR. OWITI A. K'AKUMU**

SIGNATURE-----

DATE 22/11/2011-----

**DR. TITUS AGWANDA**

SIGNATURE-----

DATE 20/11/2011-----

**Department of Architecture and Building Science**

**School of the Built Environment**

**UNIVERSITY OF NAIROBI**

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.

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## **DEDICATION**

I dedicate this work to my Late Grand Father Alton Busolo Khaoya who despite being orphaned at a tender age was able to surmount numerous challenges in life and set the foundation for our family's Education Pursuits.

## ABSTRACT

Kenya continues to experience a rapid pace of urbanization and this has led to the increase in the number of urban centres and the expansion of the already existing centres. Nairobi City is the largest and among the oldest urban centre in Kenya. Due to the importance of Nairobi as the capital city, a major commercial centres and a major industrial centre it continues to attract many people due to the high economic and social opportunities that can be accessed in Nairobi. Due to its growth it has been necessary to extend the boundaries in order to accommodate the increased numbers of people and enterprises. As a result of the growth of Nairobi many challenges can be observed in the development of Land in the Outer Suburbs and Rural Urban fringes including the provision and management of infrastructure and social facilities. On the other hand inner city areas are faced with challenges regarding access to redevelopment sites; the cost of expansion of infrastructure and social facilities; the cost of redevelopment; and the redevelopment strategies adopted.

Redevelopment challenges in inner city areas can be observed in Ngara Estate an area that has been rezoned for high density redevelopment. The pace of redevelopment is not satisfactory and this is evidenced on the ground by the existence of numerous numbers of old houses and stalled housing projects. The general objective of the study was to examine challenges of inner city parts of Nairobi redevelopment and draw lessons for Nairobi. The first specific objective was to examine the redevelopment needs in the inner city parts of Nairobi. The second specific objective was to establish the main challenges faced by developers in the context of

comprehensive redevelopment. The last specific objective was to make recommendations with a view of addressing the above challenges.

The study adopted a case study research methodology in carrying out the research. The study went through relevant information provided by the CSHSF and KRSRBS on their redevelopment initiatives in Ngara. Specifically the research was to find out the challenges these two institutions have encountered in the process of comprehensively redeveloping their land parcels. The study established that the CSHSF and KRSRBS main challenges in the process of redevelopment of their respective land parcels are the construction costs and the various challenges associated with strategies followed. Finally the study has recommendations on how to address the identified challenges.

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**List of abbreviations**

- APA -American Planning Association  
AWSB- Athi Water Services Board  
CBD -Central Business District  
CCN- City Council of Nairobi  
CSHSF- Civil Servants Housing Scheme Fund  
I.B.E.A - Imperial British East Africa Company  
IQSK -Institute of Quantity Surveyors of Kenya  
KNBS- Kenya National Bureau of Statistics  
KPLC-Kenya Power and Lighting Company  
KRC -Kenya Railways Corporation  
KRSRBS- Kenya Railways Staff Retirement Benefit Scheme  
KURA-Kenya Urban Roads Authority  
LDC -Land Development Corporation (Hong Kong)  
ML-Ministry of Lands  
MH-Ministry of Housing  
NEMA- National Environmental Management Authority  
NMC- Nairobi Municipal Committee  
NWSC -Nairobi Water and Sewerage Company  
PPOA- Public Procurement Oversight Authority  
RFP- Request for Proposals  
RFQ -Request for Qualifications  
UDZ - Urban Development Zone (South Africa)  
URA -Urban Renewal Authority (Hong Kong)



## **CHAPTER ONE: INTRODUCTION**

### **1.1 Introduction**

The chapter gives the background to this study concerned with the growth and transformations urban areas undergo as a result of social, economic and technological forces. It considers the formulation of the problem based on the issues of decaying urban areas that necessitate substantial transformation characterized by various challenges. Further this chapter considers the importance of the city of Nairobi in Kenya and in the region and the potential of inner city areas in Nairobi that makes redevelopment socially and economically feasible. Additionally the chapter states the general and specific research objectives of the study. The general objective of the study was to examine challenges of inner city parts of Nairobi redevelopment and draw lessons for Nairobi. The first specific objective was to examine the redevelopment needs in the inner city parts of Nairobi. The second specific objective was to establish the main challenges faced by developers in the context of comprehensive redevelopment. The last specific objective was to make recommendations with a view of addressing the above challenges.

Research questions have been stated with the focus on two public institutions that own land parcels in Ngara whereby the CSHSF has opted for public procurement through engagement of contractors and consultants and KRSRBS has opted for joint venture initiative under the Public Private Partnership framework in their attempts to redevelop their respective land parcels. The study is important in that it informs various public institutions and private entities who are involved in one way or another in comprehensive redevelopment. They will gain an understanding on the process of redevelopment and the possible challenges that will adversely

affect the process and on how to address the challenges. The study assumptions, scope of the study and the organization of the report are given.

## **1.2 Background of the study**

Urbanization is inevitable world over and it is exemplified by the growth and development of already existing urban areas and the emergence of new centres all together (Rakesh, 1994). According to Couch (1990) urban areas are never static and they are constantly changing by expanding, contracting or undergoing internal restructuring in response to economic and social pressures. Furthermore he notes that this is evident in old cities whereby much of the change that affected these cities has resulted from the gradual spatial and sectoral adjustments to economic activity and the movement of population between or within existing urban areas. Holliday (1973) is in agreement that change in cities is the result of social, economic and technological forces at work in society and of particular local forces and the physical factors within the city.

The main characteristic of an urban area is the concentration of a relatively large number of households in relation to the size of land holdings. This in itself poses a challenge in terms of catering for the needs of urban households in terms of provision and management of housing, physical infrastructure and social facilities. Growth of urban areas is marked by the extension of the boundaries of the urban areas to cover areas previously put under agriculture, mining or logging (Gray, 1946). There is need for the local authorities in charge of urban areas to be proactive by providing the requisite infrastructure services and social amenities in order to accommodate people in such new settlements.

According to Shihembetsa (1995) in the urban centres of many countries in Sub-Saharan Africa, a large percentage of public housing forms the inner part of cities. He further notes that there are many pockets of large empty spaces within these residential areas. The local authorities have failed to transform these residential areas to suit the housing needs of the present day residents (Shihembetsa, 1995). The units are therefore inadequate both in quality and quantity. Public rental housing in Nairobi which remains the cheapest in terms of rent is mainly located in the inner city areas within a radius of 6 Kilometres (Shihembetsa, 1995). He points out this gives a central location in terms of distances to the two major employment centres, the Central Business District (CBD) and the industrial area. Land in inner city areas remains under-utilized even though the government stresses efficient use of land in order to provide adequate housing for the low income people.

In the case of Nairobi City a quick observation of areas like Ngara, Shauri Moyo, Makongeni, Jericho and Makadara will indicate degeneration as a result of lack of or poor repair and maintenance. Despite the deterioration of such neighborhoods the low density developments occupy prime land because of the many locational advantages associated with such areas. Shihembetsa, (1995) notes that the inner city areas have a high potential for the urban poor in terms of the opportunities to earn them a living as compared to the peripheral sites of the city. He further observes that the high population density and a concentration of economic and public activities in the inner city open a multitude of formal and informal income earning opportunities to the urban poor, such as working in small scale manufacturing or as hawkers, porters or guards. It is based on such rationale that the City Council of Nairobi (CCN) rezoned Ngara area to accommodate high density developments. Given the nature of redevelopment process there are

challenges that are likely to be faced by the various developers before, during and after redevelopment.

### **1.3 Problem statement**

According to UN-Habitat (2009) more than half of the world's population now lives in cities. Due to the continued growth of urban areas the major cities world over are becoming unbearably overcrowded and the availability of housing is getting more urgent every day (Broudehoux, 1994). Gibson and Langstaff (1982) add that in cities world over, successive generations have been faced with the problems of decaying urban areas and the previous attempts to solve them. For instance they note that in Britain million of houses had to be demolished and through huge state sponsorship substantial changes in the physical and social fabric of urban areas has been achieved. Despite such efforts they note that the plight of the several million people living in inner urban areas is the biggest complex of economic, social and physical problems.

In most urban areas the urban authorities are faced with the challenge of housing the poor, low income and middle income economic groups. It has become necessary to intensively redevelop blighted areas especially in the inner city boundaries in order to accommodate more people. Koebel (1996) points out that in the process of redevelopment it is important to note that all cities are challenged to create redevelopment which balances the interests of new and old residents, of change and continuity, of investment and affordability. During redevelopment Gibson and Langstaff (1982) advises us to note that the built environment and social structure of our inner cities are the inherited products of our economic history. It is on this understanding that they advance the notion that redevelopment through state intervention should be framed within the imperatives of subsequent economic development and the dominant political ideology. They

advocate for comprehensive redevelopment with high density housing including flats that will enable a substantial majority of residents to be re housed locally and the provision of a full range of community facilities.

Nairobi the capital city of Kenya, is a commercial, industrial, financial, educational and communication hub for all of eastern and central Africa countries and it is because of such that the city of Nairobi continues to grow at a very fast rate because of rural urban migration and natural population increase (Oyugi and K'Akumu, 2007). The city's population has increased considerably from 509,286 in 1969 to 2,143,254 persons in 1999 and 3,138,369 in 2009 (KNBS, 2010). It is projected by KNBS that the city's current population is about 3,240,155. Nairobi's growth in terms of acreage and population over the past decades has resulted from the drastic urbanization process. Its growth and expansion owes much to natural growth, rural-urban migration, influx of refugees from the neighbouring war-torn countries, and influx of expatriates into the country for various international assignments (Olima and Onyango, 2008).

The inner city areas are characterized by the availability and adequacy of almost all infrastructural and social facilities. These areas are well served by the mains sewer, mains water supply, and the mains power grid and benefit from the availability of moderately functioning solid waste management systems. This makes such areas very ideal for redevelopment or development. The initial development in areas like Ngara, Shauri Moyo, Makongeni, Jericho, Parklands and Makadara are single family houses set on relatively large parcels of land. These areas near the city centre have been degenerating mainly due to neglect by the public institutions which own houses in this area. In the case of Ngara, they include the CSHSF a Fund under the

Ministry of Housing and KRSRBS a pension scheme for Kenya Railways Corporation former employees. Due to poor and/or lack of proper repair and maintenance most of the houses in such areas have substantially declined economically and aesthetically to the extent that their continued existence does not make economic and social sense. These necessitates redevelopment of such areas in order to achieve vibrancy and by so doing contribute to the overall development of the City of Nairobi which is moving towards becoming a metropolis.

Land in Ngara is suitable for high density redevelopment and hence should be in possession by developers who are in a position to meet the full costs of redevelopment and able to surmount any challenges in the process of redevelopment. Redevelopment has been made possible by the CCN which rezoned Ngara to accommodate high density redevelopments. Despite the rezoning of the area to accommodate high density developments in Ngara area, the initial development in most parts of the area remains intact without any foreseeable sign of redevelopment. This points out to possible challenges hampering the redevelopment initiatives in Ngara. The CSHSF and KRSRBS have utilized the following strategies in redeveloping their land parcels: Through public procurement of consultants and contractors; and Public Private Partnerships (PPPs). Whichever strategy is adopted there is bound to be challenges associated with the redevelopment process. Such challenges ought to be addressed in order to mitigate or counter their impact on the redevelopment process. This will determine the success or otherwise of the redevelopment initiative in terms of quality, duration of the redevelopment process and the associated costs incurred in the process.

The research project looked at the nature and state of developments; potentials of redevelopment; challenges of redevelopment faced by CSHSF and KRSRBS in Ngara and came up with recommendations on how to address the challenges faced by these two public institutions.

#### **1.4 Research questions**

- a) What are the redevelopment needs in Ngara?
- b) What are the redevelopment challenges in Ngara?
- c) How can the challenges encountered by CSHSF and KRSRBS in redevelopment projects be addressed?

#### **1.5 Study objectives**

##### **1.5.1 General objective**

To examine challenges of inner city parts of Nairobi redevelopment and draw lessons for Nairobi.

##### **1.5.2 Specific objectives**

- a) To examine the redevelopment needs in the inner city parts of Nairobi.
- b) To establish the main challenges faced by developers in the context of comprehensive redevelopment.
- c) Make recommendations with a view of addressing the above challenges.

Case study research methodology was adopted in order to address the research objectives. The study delved on CSHSF and KRSRBS as the case studies within the study area of Ngara. The

study was made possible by relevant data and information availed by the CSHSF and KRSRBS in their attempts to comprehensively redevelop their land parcels.

### **1.6 Justification of the study**

This study will inform various stakeholders including developers, CCN, Athi Water Services Board (AWSB), Kenya Urban Roads Authority (KURA), Kenya Power and Lighting Company (KPLC) and National Environmental Management Authority (NEMA) on the issues and challenges surrounding the entire process of comprehensive urban redevelopment in the inner city areas. The land owners including public institutions will benefit from the understanding of the redevelopment process and how to address the possible challenges that are likely to be encountered in the process. This will also benefit CCN which happens to own potential redevelopment sites such as Shauri Moyo, Mbotela and Makadara. The CCN as the local authority responsible for planning and development control will gain from the thorough understanding of the redevelopment process that will guide them in re-planning for comprehensive redevelopment. The study will inform service providers (AWSB, KURA, CCN and KPLC) who shall use it for their planning and budgeting purposes in areas that may undergo high density comprehensive redevelopment. NEMA will benefit from a clear understanding on environmental issues that will be associated with comprehensive redevelopment.

This study was driven by the desire to precisely document all the stages of urban redevelopment while looking at issues and possible challenges in every stage. It is prudent to redevelop inner city areas in order to maximize on the locational advantages of such neighborhoods especially in respect to convenience, access, welfare considerations and proximity to numerous socio-economic activities.



### **1.7 Study assumptions**

In order to realize the above objectives the following assumptions were made.

- a) The challenges of redevelopment encountered by CSHSF and KRSRBS are likely to be encountered by any other public institution that owns potential redevelopment sites and is contemplating to commence comprehensive redevelopment.
- b) The CSHSF and KRSRBS have serious intentions to undertake redevelopment in Ngara.

### **1.8 Scope of the study**

The research was done in Nairobi city, Kenya. The specific location of the study area is Ngara Estate a middle income area which is distinctly divided into Ngara East and Ngara West. The specific area is bounded by Ngara Road on the South, Park Road on the East and Murang'a Road on the South West.

Ngara area falls within the inner city region of Nairobi City. The other estates that fall within the inner city area of Nairobi are : Kariokor, part of Pangani, part of Highridge, part of Kenyatta Hospital, Part of Hurlingham, part of Kaloleni, Shauri Moyo, Makongeni and part of Industrial area( see Map 4.6) . Ngara was chosen because there was a clear manifestation of serious attempts to transform the estate by way of comprehensive redevelopment by land owners. Within this area the CSHSF and KRSRBS own land parcel that are very ideal for redevelopment. It is possible to comprehensively redevelop their land parcels without going through challenges inherent in the process of compulsory land acquisition or land amalgamation. This study focuses on comprehensive redevelopment of a middle class area which has degenerated over time and the

need to put it to the best use to the benefit of the specific institutions in particular and the city in general. The study focused on the redevelopment initiatives by CSHSF and KRSRBS.

The study focused on the redevelopment initiatives in Ngara. I narrowed on a segment of Ngara which is delineated by Ngara Road on the South, Park Road on the East and Murang'a Road on the South West. I chose the area because within this area the CSHSF and KRSRBS are major land owners owning 15 acres and 43 acres respectively. The study focused on these two public institutions. The study looked at their strategies of redeveloping their land parcels whereby the CSHSF has opted for public procurement through engagement of contractors and consultants. The KRSRBS has opted for joint venture initiative under the PPP framework.

### **1.9 Organization of the report**

This report is organized into six chapters. Chapter one introduces the study, formulation of the problem, states the research objectives, research methodology, research questions, scope of the study, justification of the study, organization of the study, assumptions of the study and limitation of the study. Chapter two focuses on the review of the relevant literature on redevelopment and conceptual framework. Chapter three discusses the research methodology in detail. Chapter four discusses background information of study area. Chapter five looks at the case studies, analysis of the data collected from the case studies and discussion of the findings from the analyses. In Chapter six the study draws conclusions from the findings and makes recommendations. Lastly there is a suggestion on the areas of further research.

## 1.10 Definitions

**Blight:** In Planning and redevelopment practice, blight refers to impairments on the physical fabric (buildings, properties and public improvements) on community structure and social fabric (neighborhood vitality, security, public health and welfare) or on the economy (property values, tax base, and facility obsolescence and employment base). (APA, 2004)

**Challenge:** Challenge is the situation of being faced with something needing great mental or physical effort in order to be done successfully and which therefore tests a person's ability (Cambridge Advanced Learners Dictionary, 2010)

**Inner city:** Home (1982) defines inner city as those areas of old zones of residential and industrial development lying between the centres and the suburbs of the major conurbations where the physical, social and economic problems usually called urban deprivation are concentrated.

**Public-Private Partnership:** Public-Private Partnership is defined in the Public Procurement and Disposal Regulations, 2006 as an agreement between a procuring entity and a private party under which –

- a) the private party undertakes to perform a public function or provide a service on behalf of the procuring entity;
- b) the private party receives a benefit for performing the function, either by way of compensation from a public fund; charges or fees collected by the private party from the

users of a service provided to them; or a combination of such compensation and such charges or fees;

- c) the private party is generally liable for the risks arising from the performance of the function depending on the terms of the agreement;

**Public Procurement:** Procurement has been defined in the Public Procurement and Disposal Act No. 3 of 2005 as the acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or by any other contractual means of any type of works, assets, services or goods including livestock or any combination. Public Procurement is defined in the draft long term policy framework for public procurement in Kenya by the Public Procurement Oversight Authority (PPOA) as the purchase of commodities and contracting of construction works and services if such acquisition is effected with resources from state budgets, local authority budgets, states foundation funds, domestic or foreign loans guaranteed by the state, foreign aid as well as revenue received from the economic activity of state. Public procurement thus means procurement by a procuring entity using public funds.

**Redevelopment:** Odera (1988) defines redevelopment as the replacement of the built component within an urban area in response to both physical and economic conditions of the building and market respectively. According to Broudehoux (1994) redevelopment consists of the removal of existing buildings and the re-use of cleared land for the implementation of new projects

**Redevelopment (Brownfield) Sites:** These are sites which have been affected by former uses of the site or surrounding land; are derelict or underused; are mainly in fully or partly developed

urban areas; may have real or perceived contamination problems; and require intervention to bring them back to beneficial use.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter looks at existing literature covering the relevant areas on the transformation of the urban built environment in general and redevelopment in particular. The study looks into the pattern of urban growth and deterioration in which there is an elaboration of the reasons behind the emergence of cities, the dynamics of their growth and their changing spatial structures. There is a review literature on Regeneration, Revitalization, Renewal, Redevelopment, Rehabilitation, Integration, approaches to urban redevelopment, objectives of redevelopment, criteria for redevelopment, factors justifying the need for redevelopment, redevelopment process, effects of redevelopment and challenges of redevelopment.

There is a review of key concerns in project implementation which are land, costs and finance. Given that finance for redevelopment is very important the study points out the available options of finance for redevelopment projects. The study also looks at public procurement, public private partnerships and privatization. The study borrows from experiences in redevelopment from other countries, pointing out the challenges they experienced and how they were addressed. There is a presentation on redevelopment in Kenya. Lastly the study gives a conceptual framework for urban redevelopment.

### **2.2 Urban growth and deterioration**

Rakesh(1994) notes that there has been greatest growth of large cities both in the size of individual cities and in the number of large cities. According to Dickinson (1972) as the numbers rise it becomes increasingly important to understand the reasons behind the emergence of these cities, the dynamics of their growth and their changing spatial structures. According to

Gray (1946) the location of new housing projects and the rehabilitation of obsolescent and obsolete neighborhoods require consideration of the probable direction of the future city growth and of how the land uses will in the future be distributed in the area of urban expansion. Normally as cities expand they tend to follow certain broad trends. The slope of the land governs all other factors. Most cities in the first place began as settlements on some transportation route of water or land.

As the cities have grown, the outlying higher and well drained land with good outlook has naturally been sought for residential use. Gray (1946) indicates that from the start there have been two main directions of attraction for the growth of the city; first, the inward attraction of the business center (a centripetal or centralizing force), then the outward attraction of the open country (a centrifugal or decentralizing force).

According to Gray (1946) the movement due to the outward attraction has followed the lines of least resistance and has tended to flow first through the valleys, following the streams. So it is that, while these centralizing and decentralizing forces, working from a common center, have tended to produce a concentric growth, topographic features have almost invariably intervened to produce a radial or star shaped pattern, with the concentration of population and activity diminishing from the center outward. This has been the normal pattern of growth of cities everywhere. Koebel (1996) points out that everywhere the city is a dynamic system of building, expansion, contraction, maintenance, decline, repair, demolition, and rebuilding.

There is but one way out of the menace of obsolescence. It is to re plan these neighborhoods so that they will meet needs of future use whether the future use is the original use or a new one. Conditions may warrant rehabilitation of existing buildings, or may call for demolishing of all buildings and a plan for complete redevelopment. Such re-planning should begin with the street plan, and be followed by a reorganization of the block plan. According to Gray (1946) before these things are undertaken there should be prepared a master plan of the entire city showing a rational distribution of all activities of the city life, and the necessary traffic routes.

The obsolete and obsolescent residential areas are so extensive in most cities that often sometimes constitute a formidable part of the developed area of the city. The lines of demarcation are not sharply defined between good housing, obsolescent, obsolete and definitely unsanitary housing; and the number in each group is constantly changing through continuing obsolescence on the one hand and minor repairs and modernization on the other, so that estimates of numbers or precise proportions would be of little value, and would even be misleading unless based on current surveys for each locality (Gray, 1946). The obsolete areas are not all occupied by families of uniformly low income; but, whatever groups may occupy them, they are a sore spot in the social and economic fabric of each city, and the aggregate of all the development of all the cities of the nation is so great that the rehabilitation of the obsolete areas becomes important in the national economy.

According to Gray (1946) exploratory assessment should look into the city-wide conditions, find the facts about the populations living in these areas the make-up of the families (parents, children and others), their occupations, places of work, means of transportation to and from work; their



income, the location of their community services such as shopping centers, schools, playgrounds, parks and movie houses; it should determine which areas should be rehabilitated, which should be redeveloped, which houses should come down and which should be remodeled; the relation of the street system to neighborhood needs, and if or how it integrates with the major traffic plan of the city . With these data it can be reasonably ascertained to what extent the areas should be continued as residence areas and for what type of residence, or for what other uses they should be zoned; what changes need to be made in the plan of the streets and what advantageous readjustment can be made in the use of private land.

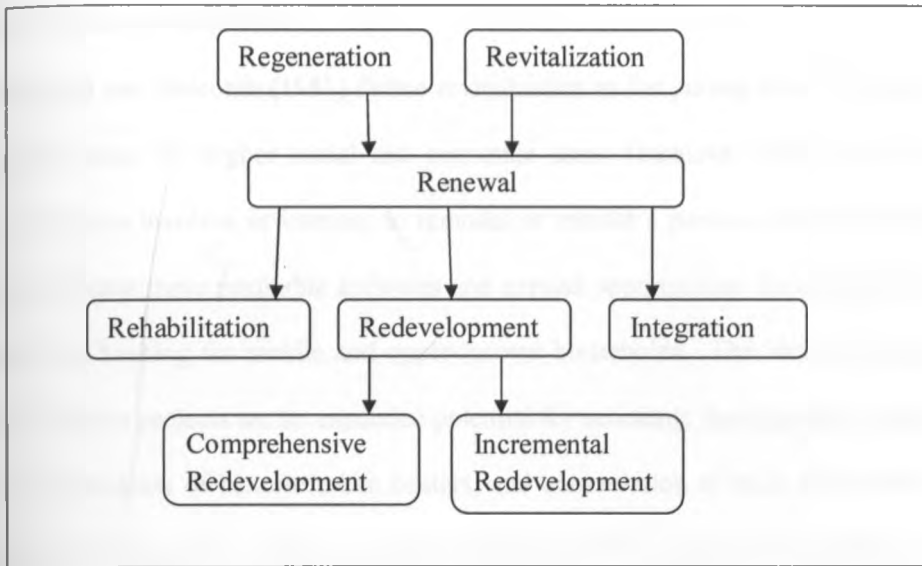
It is worth noting that the older portions of the cities are usually in competition with their suburbs. An obsolete residence neighborhood near the center of the city, rehabilitated or redeveloped along attractive and efficient modern lines, with playgrounds to keep the youngsters off the streets, and all the other conveniences and amenities of a well-organized neighborhood, holds out many advantages and may well compete with the suburbs(Gray, 1946).

### **2.3 Ways of transforming the urban built environment**

Changing the urban built environment can be achieved through the following interventions: Regeneration, Revitalization, Renewal, Redevelopment, Rehabilitation and Integration. The levels are shown in chart 3.1. According to Couch et al (2003) Urban Regeneration aims at re-growth of economic activity, restoration of environmental quality and recovery of social inclusion. Urban revitalization involves investment to remodel or rebuild a portion of the urban environment to accommodate more profitable activities and expand opportunities for consumption, particularly retail and housing for middle and upper-income households

(Temelova, 2008). It is further pointed out by Temelova (2008) that Revitalization aims at expanded potential for economic development, improved quality of life for residents of historic urban centers, and conservation of built and cultural heritage in a manner that promotes income growth. Couch (1990) defines Urban renewal as the physical change or change in the use or intensity of change of land and building, that it is inevitable outcome of the action of economic and social forces upon urban areas. According to Broudehoux (1994) the possible approaches to neighborhood renewal are Redevelopment, wherein a neighborhood is rebuilt anew; Rehabilitation, wherein the existing structures are preserved and upgraded; and Integration, a combination of the first two approaches.

This section contextualizes urban redevelopment within other forms of interventions aimed at transforming the urban built environment.



**Chart 2.1 Ways of transforming the urban built environment**

Source: Author (2010)

### 2.3.1 Urban regeneration

Regeneration is whereby urban renewal incorporates planned intervention in economic regeneration and employment provision as well as the long established pre occupation with housing and environmental conditions (Gibson and Langstaff, 1982). In this case urban renewal is used in a generic sense to encompass all the aspects of intervention in the transformation of built urban space. Regeneration has also been defined by Couch et al (2003) as a field of public policy that aims at re-growth of economic activity, restoration of environmental quality and recovery of social inclusion. McGreal et al (2004) concurs that urban regeneration describes the process of physical and economic renewal of locations, where development and investment in property represent the fundamental tool. According to Leney (2008) regeneration is the process of rectifying and managing internal problems of an area by enhancing its development opportunities with a purpose of combating results of uneven socio-economic development.

### **2.3.2 Urban revitalization**

Bearegard and Holcomb (1981) define revitalization as the putting of new life into cities and to upgrade areas for higher social and economic uses. Temelova (2008) points out that urban revitalization involves investment to remodel or rebuild a portion of the urban environment to accommodate more profitable activities and expand opportunities for consumption, particularly retail and housing for middle and upper-income households. The ultimate objectives of urban revitalization projects are an expanded potential for economic development, improved quality of life for residents of historic urban centers, and conservation of built and cultural heritage in a manner that promotes income growth. Temelova (2008) points out that while individual urban revitalization programs must necessarily be tailored to each city's particular circumstance, in order to be successful they are likely to include the following components:

- (i) Heritage-sensitive zoning and building regulations that stimulate urban renewal and growth in local income and that promote adaptive reuse of built heritage.
- (ii) Funding mechanisms for financing the upgrading of public infrastructure and supporting rehabilitation of private housing; and
- (iii) Funding mechanisms for supporting overall economic development of the heritage area in question.

### **2.3.3 Urban renewal**

Gibson and Langstaff (1982) define urban renewal as the redevelopment or rehabilitation of the older parts of towns and cities including their central business areas. Furthermore in practice so defined has often meant the displacement of an existing low-income population creating space

for more profitable office, commercial and luxury residential development or the provision of transport facilities. Treister (1987) notes that urban renewal is the general process of transforming the urban environment and that as the years pass, transformations take place, allowing the city to constantly rejuvenate itself in a natural and organic way. According to Couch (1990) urban renewal is the physical change or change in the use or intensity of change of land and building, that it is inevitable outcome of the action of economic and social forces upon urban areas. It has been generally agreed that the main purpose of urban renewal is to deliberately change the urban environment and to inject new vitality through planned adjustment of existing areas to respond to present and future requirements for urban living and working.

According to Couch (1990) the spatial and sectoral changes in demand for land and buildings lead to the intensification of use in some areas, a reduction of density in others, in some cases to refurbishment and perhaps a change in use of a building, in another case to demolition and reconstruction and in a few cases to the abandonment of buildings leading to vacancy and dereliction. He further points out that there will be public utilities like transportation infrastructure and social facilities to be provided, adapted, expanded, contracted or replaced in response to the changing demands.

According to Couch (1990) the following facets can be identified;

- a) Market led renewal and restructuring without state intervention whereby urban renewal is primarily private sector driven.
- b) Urban renewal can take the form of social expenses which are regarded by the state as necessary for social harmony and well being. This is whereby the central or local

government substantively invests directly in housing, public health and environmental policies.

- c) Urban renewal can also be achieved by social physical capital investments and state regulation that facilitates profitable property redevelopment. This can be realized by means such as the subsidies provided for derelict land reclamation, physical infrastructure and public transport provision.

According to Broudehoux (1994) the possible approaches to neighborhood renewal can therefore be identified as: Redevelopment, wherein a neighborhood is rebuilt anew; Rehabilitation, wherein the existing structures are preserved and upgraded; and Integration, a combination of the first two approaches.

#### **2.3.4 Urban redevelopment**

Redevelopment encompasses demolition and reconstruction of buildings in a specific location. According to Odera (1988) redevelopment entails the replacement of the built component within an urban area in response to both physical and economic conditions of the building and market respectively. Furthermore redevelopment also comprises the putting in place of various supportive infrastructural and social facilities for the envisaged redevelopment. This position is shared by Gibson and Langstaff (1982) who note that the object of redevelopment if it is to be successful is to bring back an obsolete district to a high standard and this can be achieved if the whole layout is changed with the provision of new roads, open spaces and good new shops, proper zoning and all the amenities of a new and up to date development. They caution that to

rebuild a few groups of houses in an already dingy setting will never do this and the whole area must be new and it must look completely different.

According to Broudehoux (1994) redevelopment consists of the removal of existing buildings and the re-use of cleared land for the implementation of new projects. This approach is applicable to areas in which buildings are in seriously deteriorated condition and have no preservation value, or in which the arrangement of buildings are such that the area cannot provide satisfactory living conditions to the urban dwellers ( Broudehoux ,1994). It is because of such that the demolition and reconstruction, of whole blocks or of small sections, is often thought to be the only solution to ensure future comfort and safety of the residents.

According to Broudehoux (1994) for developers, redevelopment represents maximum profit through the sale of new centrally -located units. This approach is preferred by local governments because it ensures maximum use of land, higher floor area ratio, and has the advantage of introducing higher income groups and commercial activities to the inner city areas which increase tax revenues. It also leads to higher population density and improved services and infrastructures, which is highly desirable for modernizing inner-city areas (Broudehoux, 1994)).

Redevelopment generally involves the relocation of the original population to another part of the city and according to Broudehoux (1994) even when the residents are accommodated on the same site after its redevelopment, the transformation of the neighborhood beyond recognition has inevitable psychological impacts upon the community. For tenants, owners, and businessmen

alike, the destruction of the neighborhood exacted social and psychological losses. Redevelopment immensely disrupts functioning social systems by scattering families and friends and this is more acute to the many older people.

### **2.3.5 Urban rehabilitation**

Rehabilitation often referred to as conservation or preservation entails preserving, repairing, and restoring the natural and man-made environments of existing neighborhoods. It is appropriate to areas where buildings are generally in structurally sound condition but have deteriorated because of lack of repair and maintenance. It takes advantage of the existing housing stock as a valuable resource and adapts old houses to present day life and acceptable standards by providing modern facilities.

Rehabilitation recognizes that the limited availability of funds for new construction and the serious housing shortage make the option of destroying already-existing housing appear both unaffordable and imprudent. It recognizes the value of old neighborhoods and, by preserving what is unique, ancient, and specifically local, it can also contribute to the development of the tourism industry and stimulate the economy (Broudehoux, 1994)

Concerning the impacts on the population, residential rehabilitation can take place in two distinct ways: Gentrification and Incumbent Upgrading (Clay, 1979).

- (i) Gentrification is defined as the process by which middle- and upper-class people move to a neighborhood, attracted by its proximity to central business districts and replace the previous working-class inhabitants (Holcomb and Beauregard, 1981, and Varady, 1986).



(ii) Incumbent upgrading is whereby the residents remain in place and invest in their own time, money, and energy into refurbishing their housing and improving their social conditions (Varady, 1986). In developing countries, upgrading generally refers to a comprehensive developmental approach wherein the original population remains on the site and incrementally upgrades the neighborhood, with or without public assistance.

### **2.3.6 Urban integration**

Integration views rehabilitation and redevelopment as complementary forces and combines the best aspects of both approaches. According to Broudehoux (1994) integration consists of rehabilitation of what can realistically be saved, combined with reconstruction of new buildings in place of those beyond the reach of feasible rehabilitation. Integration is considered today to be the most acceptable way to regenerate old neighborhoods as it allows for flexible project implementation which can preserve the traditional urban environment and its human scale while achieving respectable densities.

Integration is also preferred because it respects the social order of the community by re-accommodating the majority of the original residents on the site while inviting mass participation. Furthermore integration results in the creation of rich environments through the integration of new buildings within the existing neighborhoods and allows for the development of a new form of contemporary architecture with local characteristics, enriching the appearance of the old city while maintaining its identity (Broudehoux, 1994).

## **2.4 Urban redevelopment**

### **2.4.1 Approaches to urban redevelopment**

According to Odera (1988) the following are the approaches to redevelopment;

- (i) Comprehensive Redevelopment Approach presupposes public ownership and control over Land and in this case it is usually a public concern. Its main advantage is that it can address the problem of layout of infrastructure. It also speeds up redevelopment and affects large areas at once.
- (ii) Incremental Redevelopment Approach is whereby redevelopment proceeds through the activities of private owners and developers operating within the framework of Planning and Building laws and regulations.

### **2.4.2 Objectives of redevelopment**

According to Perloff et al (1975) redevelopment will increase National income and economic efficiency. In this respect the locational advantages of inner city areas in respect to employment centres and ease of access to social amenities will have a positive impact on the productivity of residents and the area. They also point out that redevelopment will improve the competitive position of the inner city intra-urban redistribution of income (geographical place prosperity). This will happen because redevelopment usually makes inner city areas more attractive as places of residence by people belonging to a higher income group than the previous residents.

Perloff et al (1975) note that redevelopment will mitigate poverty by fostering inter-personal redistribution of income. This happens as a result of densification that results into a large number of residents being naturally supported by numerous small and micro enterprises belonging to people within and without the redeveloped area and who will now be assured of improvement in their incomes.

Redevelopment eliminates Blight and slums and this is achieved by the physical change of blighted areas with new modern redevelopments (Perloff et al ,1975). Lastly redevelopment beautifies the cities and towns by having in place appropriate redevelopment plans that provides for proper estate site layouts and with adequate vegetation cover. This will improve on the movement of people and the green scenery of trees is usually very attractive to city and town dwellers.

#### **2.4.3 Advantages of redevelopment**

Redevelopment generally involves the development or improvement of an area that was developed at some time in the past but presently suffers from real or perceived physical deficiencies such as blight or environmental contamination or is developed for uses that have become obsolete or inappropriate as a result of changing social or market conditions (Gray, 1946).

There is Conservation of land resources as a result of attracting new development to infill and brown field sites rather than converting raw agricultural or undeveloped land parcels (APA,

2004). As for the case of inner city area the number of households to be accommodated will be much higher than the number of households before redevelopment. This will ease the demand for residential plots in the outer suburbs and the rural urban fringe.

Redevelopment takes advantage of existing infrastructure rather than requiring the construction of expensive new infrastructure (APA, 2004). The cost of expanding the current infrastructure to cater for the increase in the number of households is much lower than the cost of servicing undeveloped land parcels.

Redevelopment promotes the Reuse and recycling of existing resources given that during demolition the debris from the demolished units can be utilized as construction materials for redevelopment. Redevelopment can also improve or restore natural systems such as streambeds, drainage courses, wetlands, rivers, ports, ambient air quality, and other ecological features (APA, 2004).

#### **2.4.4 Factors justifying the need for redevelopment**

There is need to recognize that there are many events, conditions, and causes that lead to the need for redevelopment. According to APA (2004) redevelopment becomes necessary when buildings are unsafe or unhealthy for persons to live or work due to dilapidation; deterioration; defective design or physical construction; inadequate utilities; lack of ventilation, light, or sanitary facilities; contamination by hazardous substances; or below minimum code. These are

condemned buildings in a very poor state of repair and maintenance and hence unfit for human occupation.

Sites are ripe for redevelopment when there is predominance of defective or inadequate street layout and narrow road network that impede the free movement of people within the area (APA, 2004). This situation can be addressed in comprehensive redevelopment by allowing for pedestrian circulation paths and the widening of estate access roads. This is a challenge that needs to be addressed in the process of redevelopment of inner city areas.

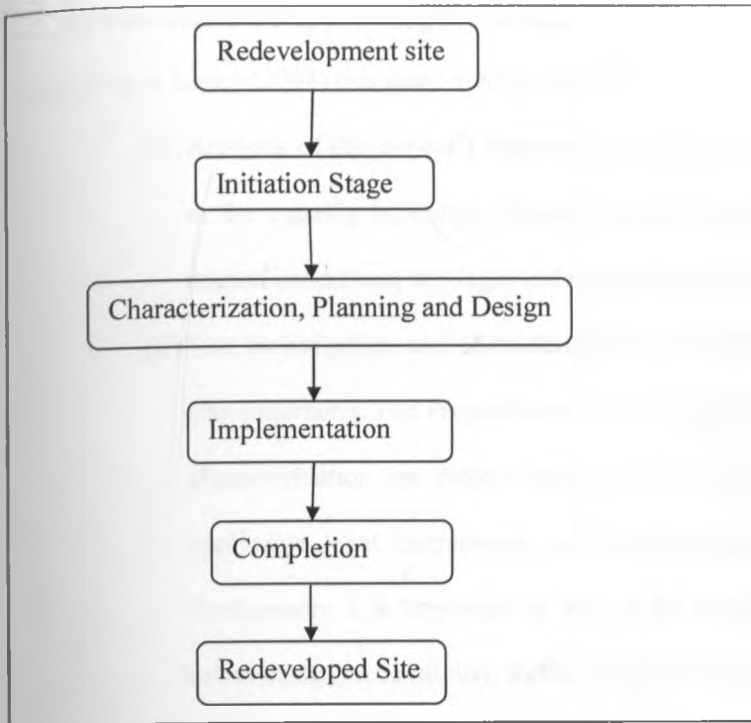
Redevelopment becomes ideal when there is multiple ownership of properties that inhibit the assembly of economically viable properties that meet current development standards (APA, 2004). In such a case whereby we have multiple owners of small land parcels of say less than one acre each it will be necessary to assemble such in order to carry out comprehensive redevelopment. In the case of incremental redevelopment the multiple owners of redevelopment sites will not be a position to meet the costs associated with high density redevelopment at the same time.

The change of land use from residential to commercial or light industry will necessitate further conversion of other adjacent land uses to such kind of use or uses that will be compatible. According to APA (2004) this will be achieved through redevelopment of the area and adjacent areas. Further on excessive vacancy, abandoned buildings, or excessive vacant lots within an area developed for urban use and served by utilities can be addressed through redevelopment.

This also applies to a situation whereby single family houses are set on large plots that are very ideal for high density redevelopment.

#### **2.4.5 Redevelopment process**

Leney (2008) advises that redevelopment should be looked at as a construction project while emphasizing the physical, environmental, policy and social aspects of the process. Redevelopment can be let by the public-sector, private sector or community with appropriate guidelines for land owners, developers, investors, Local Authorities, planning officers, environmental and engineering consultants. According to Leney (2008) and Cadman and Toppings (1995) the following are the main stages in any redevelopment or development process.



**Chart 2.2 Conceptual model of the Redevelopment Process**

Source: Leney (2008)

**(a) Initiation**

Development is initiated when either a parcel of land (or site) is considered suitable for a different or more intensive use or demand for a particular use leads to a search for a suitable site (Cadman and Toppings, 1995). In this stage the decision to redevelop is made based on the existing urban plan and the Zoning requirement of the area. Leney (2008) advises that before the final decision is made on whether to redevelop or not the project should be economically, socially and politically viable and sustainable.

## **(b) Characterization, planning and design**

According to Leney (2008) this stage involves the following;

- (i) Analysis of the project's opportunities and restrictions which is done by looking at the existing buildings, physical infrastructure and social amenities; Property market conditions; and legal and technical feasibility.
- (ii) Site investigation and characterization undertaken with a view to establish the site-conditions. The Properties of urban areas that may be investigated during site characterization are Project Structure Plan that looks at the land use concept; applicable legal instruments; and costs, revenue and finance for the project. Furthermore it is important to look at an integrated spatial concept that entails urban design, accessibility, traffic utilities and landscaping.
- (iii) Planning control process. This is whereby the plans for redevelopment are submitted for approval to the Local Authority. It is necessary to publicize the plans so that interested parties are aware of the proposals and further to invite them for their concurrence or objection.
- (iv) Detailed design that looks at the management of risks, demolition, remediation and development. According to Leney (2008) issues addressed within detailed design are:
  - 1) Finalization of the detail of the site layout
  - 2) Layout of roads and paths
  - 3) Site access
  - 4) Landscaping
  - 5) Infrastructure works



- 6) Architectural design of buildings and other structures, and design of building services
- 7) Design of work to mitigate environmental impact
- 8) Demolition or restoration of existing buildings
- 9) Health and safety during construction
- 10) Site characterization and investigation work

### **(c) Implementation**

The nature of the work carried out will depend upon the state of the site and the proposed after use but will usually include demolition, remediation, geotechnical work, construction, landscaping, works to mitigate potential risks such as flooding, and the installation of roads and other infrastructure (Leney, 2008). According to Kwakye (1997) the sub stages under implementation are: conception or briefing; design; documentation; tendering and estimating; and construction.

**Table 2.1: Sub- Stages during implementation**

<b>Sub- Stage</b>	<b>Activity</b>
Conception or briefing	The building owner having decided to develop a parcel of land appoints an architect whom he briefs about the user requirement and cost limit.
Design	The appointed architect explores the feasibility of the building owner's proposal , then carries out the process of designing a building that meets the client's requirements in terms of accommodation, cost , quality and time.
Documentation	The building owner's professional advisers select the type of contract that suits the project in terms of cost, time and general market conditions. A tender document is prepared to aid selection of a suitable builder and the execution of the construction works.
Tendering and estimating	Completed documents are sent to selected contractors to enable them to submit competitive bids for the project. In most cases the contractor who submits the lowest tender price is awarded the contract.
Construction	The selected builder undertakes the construction of the building to the shape, size and quality as depicted on the architect's drawings and specification.

**Source: Adapted from (Kwaky, 1997)**

**(d) Completion/ Commissioning**

Kwaky (1997) points out that during this stage the completed building is handed over to the building owner and the architect ensures that the building and its services perform to the owner's

expectations. Furthermore the architect gives the owner general guidance on maintenance and as-built drawings for buildings, drainage and service installations.

According to Leney (2008) this stage entails;

- (i) Completion and validation of development objectives
- (ii) Long term monitoring and maintenance
- (iii) Documentation and final costing
- (iv) Disposal by way of Selling or renting.

Leney (2008) observes that it is during this stage that the completed development is transferred to the end user. This may be through the sale of the development directly to an end-user, the sale of the development to a third party who will manage the property, or the lease of the development to an end user.

#### **2.4.6 Effects of redevelopment**

According to Gibson and Langstaff (1982) the effects of clearance and redevelopment policies on the built environment have been drastic and with the social implications being the focus of most controversy. In this respect the major focus of argument over clearance and redevelopment has been their impact on the lives of the resulting older housing areas and with some conclusions such as “what started off as an ameliorative and beneficial policy has taken on the attribute of an inevitable and malevolent process without humanity or compassion” (Gibson and Langstaff ,1982).

According to Broudehoux (1994) redevelopment serious negative consequence is the demolition of architectural environments, the sacrifice of a community's cultural heritage and the destruction of viable neighborhoods and by so doing deprives people of valuable housing resources which in

many cases still serve a useful function. Olima and Shihembetsa (2001) advise that high density redevelopments must not only be economically efficient and reinforce sustainable human development but also be culturally and socially acceptable.

According to Gibson and Langstaff (1982) the following are immediate consequences of the redevelopment process. They are considered as the undesirable by-products of the redevelopment process.

- a) Delays and postponement with respect to the dates when people are to be relocated and re-housed in satisfactory accommodation as they pave way to redevelopment.
- b) The appalling and continually deteriorating living conditions both within the houses themselves and in the surrounding neighborhood. This is in connection to the repair and maintenance of the redeveloped housing units.
- c) The despair faced by residents of clearance areas who feel they have little contact with the authorities carrying out redevelopment programmes. It is usually advisable to engage the community while impressing upon them on the advantages of redevelopment. The uncertainty and despair have been caused by lack of communication. Gibson and Langstaff (1982) advances the following four major justifications as ways of addressing the problem of communication within an area earmarked for redevelopment;
  - (i) The residents are made to feel part and parcel of the entire process knowing very well what to expect as benefits and the price they have to pay in the redevelopment initiative. The residents should be informed early enough so that

they prepare to access by way of purchase or rental of the redeveloped housing units.

(ii) Communication should be improved on public relation grounds and this will reduce hostility and resentment. When the residents of redevelopment sites are adequately engaged and involved in the process the acceptability of the redevelopment project will be enhanced. They will not unnecessarily refuse to give way to the redevelopment project once they are assured of the benefits of redevelopment.

(iii) Communication is improved as a pre requisite of effective choice in re housing. The tenants of redevelopment sites can be asked to give suggestions on kind of units they prefer especially in terms of accommodation size and details. This should be looked into in relation to the general housing market tastes and preferences.

(iv) Communication is an essential basis for participation and greater resident involvement in the redevelopment process. As provided for under the Sectional properties Act (Act No.21 of 1987) Laws of Kenya it is a must for owners of Flats to form a management company to run the affairs of their properties. Furthermore it is necessary for flat owners to form neighborhood association to manage their affairs in relation to their properties. The earlier the tenants of redevelopment sites are made aware of such provisions the better for it will have a positive impact on the post redevelopment phase.

## **2.4.7 Challenges of redevelopment**

### **Introduction**

According to Koebel (1996) Physical decline and the necessity of redevelopment are never-ending challenges for built communities. He further indicates that the evidence of decline is plentiful in American cities and is spreading to inner suburbs. This is characterized by loss of population (middle-class populations), commerce, and tax base. This trend can only be reversed through reinvestment and redevelopment. Koebel (1996) notes that redevelopment faces several important obstacles: uncertain markets; difficulty of land assembly; cost of redevelopment; and, negative neighborhood effects. These give rise to the need for public assistance for private redevelopment through use of eminent domain, development subsidies, and regulatory incentives. The following are challenges of urban redevelopment.

#### **(a) Redevelopment resources**

Gibson and Langstaff (1982) points out that the main problem of redevelopment initiatives is the inadequacy of resources for redevelopment. This has usually resulted in endemic delays in the clearance programmes in most towns and cities. Apart from financial resources another key prerequisite of any clearance and redevelopment programme is that there must be enough houses for the people to be satisfactorily re housed. Leney (2008) points out that although redevelopment is primarily a physical process it must address a range of social, environmental and economic problems in order to be successful and sustainable.

### **(b) Land**

Leney (2008) observes that redevelopment sites often have fragmented ownership which either restricts development to smaller sites or requires land to be assembled into parcels suitable for development. Land assembly is usually addressed during the initiation stage of redevelopment and can be achieved through agreements between the parties involved or through compulsory purchase (Leney, 2008). Due to the process of compulsory purchase being slow, costly and complex it is usually the last resort in attempts to assemble land

### **(c) Land use planning**

According to Leney (2008) land use planning can provide the stimulus to initiate redevelopment and can have considerable influence in shaping redevelopment as it provides a framework for planning and design. It becomes necessary for redevelopers to comply with all the requirements of land use planning.

### **(d) Development control and planning permissions**

According to Leney (2008) the planning system regulates development through the granting of planning permission and, within the redevelopment of a redevelopment site, this permission will be applied for during the characterization, planning and design stage. He further points out that planning application must include adequate information for the local authority to be able to understand and evaluate the impact of the proposed development in order for it to make a decision that takes proper account of national, regional and local planning. Furthermore, developers must gain planning permission from the Local Authority to be able to redevelop a site and the negotiations to gain planning permission, and the conditions attached to it, can have a

significant influence on the design of the redevelopment. Failure to provide enough information will lead to delays in getting the approvals.

**(e) Poor ground conditions**

Land contamination is caused by the previous land uses or by the existence of natural substances in the ground (Leney, 2008). On a redevelopment site, the nature of the previous use is in general the most significant factor determining the type and extent of contamination and although redevelopment sites are not necessarily contaminated this should be considered as part of the redevelopment process. Leney (2008) advises that where land being redeveloped is suspected of being affected by contamination, a risk assessment must be carried out to identify any existing or new unacceptable risks and these risks should be managed as part of the development.

**(f) Loss of biodiversity, historic features, landscapes or buildings**

Brownfield sites can have greater biodiversity than greenfield sites so the potential loss of biodiversity can be a significant issue (Leney, 2008). However, redevelopment, if managed properly, can reverse the trend of habitat destruction in urban areas. Leney (2008) is of the view that redevelopment and regeneration should have minimal adverse impact on biodiversity and enhance it where possible

**(g) Poor market conditions**

The first stage involves researching the market to determine what demand exists for redevelopment and the potential to obtain planning consent for the change required to meet these demands (Leney, 2008).



## **2.5 Key concerns in project implementation**

### **2.5.1 Land Concerns**

The following are issues surrounding land that may affect the process of redevelopment. This is based on the understanding that interested stakeholders need to access land for the purpose of redevelopment. Olima and Shihembetsa (2000) observe that land plays a key role in urban development with competing land uses being transport, recreation, commercial, residential and industry. Although they argue that land cannot be physically created; the effective area of land can be increased by more intensive use including construction of multi-storey residential blocks on low density residential sites or be decreased by a reversion to less intensive use. According to Mabogunje (1992) the demand for urban land is usually driven by a number of forces such as the rate of population growth, income distribution, and the volume of government activities, the rate of economic growth, and the inflationary situation in the national economy. Population growth is by far the most important force driving the demand for land for residential development. King'oriah (1987) observes that the amount of money payable for land as a factor of production will in addition to being influenced by derived demand, scarcity or specificity of the factor, quality of land and the location of land from urban market centres and central places. He further notes that both transportation costs and the quality of land have therefore been found to influence the supply of land available for various purposes and they inform prospective land buyers.

Syagga (2002) advises that the most essential objective of any urban land policy should be to secure enough land, with services and in the urban areas. He further elaborates that for the above to happen to our land first, but even more importantly, to improve methods of allocation and registration to individuals and groups that intend to carry out development. Urban land in Kenya

has continuously belonged to the Government and held on lease by private individuals, organizations and institutions. Syagga (2002) points out that the very rapid expansion urban centres like Nairobi has however not only exhausted pockets of government land but has also necessitated the expansion of boundaries.

Payne (2000) observes that under conditions of rapid urbanization, competition for secure, serviced land is increasing in all developing countries. This places greater pressure on existing tenure systems and requires governments to formulate policies which encourage efficient land use and improve accessibility to all socio-economic groups. Payne (2000) further emphasizes that the central issue is therefore what forms of land tenure are most likely to achieve these objectives of efficiency and equity in different contexts.

### **2.5.2 Costs in Construction projects**

According to Kwakye (1997) the terms construction cost and cost of construction refers to different concepts with their unique identities. Construction cost represents the amount of money a client will have to pay a building contractor for executing construction works (Kwakye, 1997). According to Kwakye (1997) the extent of the construction cost will depend on the size , type, form, location, complexity, level of specification, tendering climate, predicted inflation, risks and procurement methods adopted. Kwakye (1997) advises that the initial tender price may be subject to change due to one or more of the following factors.

- a) Increased costs as a result of increase in price of material /components, plant and human resources procurement during the execution of the project.

- b) Financial adjustments to the project as a result of variations authorized by the client and /or his professional advisers during the progress of the works.
- c) Claim for direct loss and /or expense submitted by the contractor due to disruptive events in the course of the production process for which the client is contractually responsible.
- d) Indirect cost of development which affects the production programme and for which neither the client nor the contractor is contractually responsible. For instance an unusually bad weather which gives rise to extension of time and which in turn causes the client to lose rental income or use of the building.
- e) Indirect cost of legal expenses incurred as a result of resolving contractual disputes in the court of law or by arbitration.

Kwakye (1997) defines Cost of Construction as the cost the contractor incurs in producing the clients building. Cost of Construction is composed of the following:

- a) Labour cost that comprises the cost of employing site operatives.
- b) Material cost that comprises the cost of materials purchased from builders' merchants or supplied by nominated suppliers.
- c) Plant cost which is the cost of hired/ purchased item of plant brought onto site and used in the production process.
- d) Overhead costs which are elements of cost not confined to an individual item of work and covers all financial matters that relate to the entire project. Under this category we have site overhead costs that cover the cost of providing site management and equipment

required for the execution of a construction project. Site overhead includes the cost of maintaining site supervisory staff, offices, temporary roads, security, mess facilities, power and the like. Another category is head office overhead which is an establishment charge that covers all costs the building contractor incurs in running the construction business.

Total project cost is the client's total expenditure on the project which is the sum total of factors such as land costs, construction cost, interest charges and fees (Kwakye, 1997).

Olima and K,Akumu (1999) point out that in a contract the two most important items are the contract sum and the contract time. They explain that the commencement and completion dates of a contract are very important for both parties. Any deviation from the specified dates constitutes a breach of contract and the guilty party is held liable to damages. Furthermore they advise that it is necessary for parties in a contract to agree on Liquidated damages on per diem basis and has to be paid by the guilty one when a certain delay occurs. Contract price adjustment must be included in an unstable economic climate for a contract lasting one year or more to take care of price increase after the signing of the contract (Olima and K,Akumu ,1999). Variations are changes in specification that occur during the construction process due to unforeseen circumstances in the design and planning periods. Olima and K,Akumu (1999) warn that large variations would simply result in financial problems for the project.

### 2.5.3 Finance

Kwakye (1997) points out that no construction project can start without adequate funds to finance it. Furthermore where the client has not the funds for development he has to make funding arrangements to meet its costs. If a client intends to sell the finished product he requires finance only for a limited period (short term finance) whereas on the other hand if the client proposes to retain the completed facility as a permanent investment there is need to raise both short term and long term finance (Kwakye, 1997). Kwakye (1997) recognizes the following forms of financial arrangements.

- (i) Short-term finance: This financial arrangement is made for the settlement of the total project cost and in effect this is finance needed to construct the building before any income is received. The primary sources of short-term finance are internal sources and commercial banks. The main disadvantages of short-term finance are the short duration of the credit facility and it is relatively expensive on the ground of the limited security of land and unfinished construction product.
- (ii) Long-term finance: Clients may raise long-term finance either by selling outright an interest in a development or by borrowing against the security of a finished product. Long-term finance is secured on a completed construction project and hence capital security is much greater and as a result, attracts a lower rate of interest.
- (iii) Partnership scheme arrangements: This is whereby a client has devised a development plan but lacks suitable land and or the necessary finance for the development he may enter into a partnership with a land owner ( such as Local authority) and financial institution.

## **2.6 Redevelopment Procurement Frameworks**

Public institutions that own land parcels in the inner city areas can participate in redevelopment by way of public procurement, PPPs or through full privatization. In the case of public procurement they engage contractors and consultants to carry out redevelopment of their redevelopment sites on their behalf. In the case of PPPs, the public institutions partner with private entities to carry out redevelopment. During and after redevelopment they share proceeds from the redevelopment based on a legally binding agreement. Lastly in the case of full privatization the public institutions sell their redevelopment sites to private entities through public tender. In the process of implementing their projects especially works, public institutions can choose any of the three ways. They should adopt a way that best suits their circumstances and the prevailing political, economic and social environments at that particular point in time.

The following table gives the definition and main features of PPPs, Public procurement and full Privatization.

**Table 2.2: The Public Procurement, PPP and Private Procurement Continuum**

	<b>Public procurement</b>	<b>PPP</b>	<b>Private procurement</b>
<b>Definition</b>	Supply by the private sector of works, goods or service as defined by the public authority.	PPPs introduce private sector efficiencies into public service by means of a long-term contractual arrangement. They secure all or part of the public service, call upon private funding and private sector know-how.	Privatization means transferring a public service or facility to the private sector, usually with ownership, for it to be managed in accordance with market forces and within a defined framework.
<b>Main Features</b>	<p>Contracting authority establishes clearly what is to be built, how and by what means.</p> <p>Invitations to tenders are accompanied by very detailed technical specifications regarding the type of work being procured.</p> <p>Price quote is the single most important criterion in the evaluation of bids</p> <p>The procurement process is short-term in nature and does not involve long term occupancy of infrastructure assets, and thus does not lay emphasis on the operational phase of the project.</p>	<p>Contracting authority establishes the specifications of a project and leaves to the private sector the responsibility of proposing the best solution, subject to certain requirements.</p> <p>Price is one of the many criteria in the evaluation of bids. A lot of emphasis is on the technical and financial capability of the bidder, financial arrangements proposed, and the reliability of technical solutions used.</p> <p>Given the long duration of the concession period, emphasis is on the arrangements proposed for the operational phase.</p>	<p>Privatization authority prepares the divestment plan.</p> <p>Involves transfer of ownership to the private sector.</p> <p>It is a generally a complex transaction with carefully designed contracts and a multi-stage competitive tender processes.</p> <p>Generally, the public sector withdraws from management of the entity on privatization.</p> <p>Almost all risks are borne by the private sector.</p>

Source: (Ong'olo, 2006)

### **2.6.1 Public procurement**

Public procurement may be defined as the purchase of commodities and contracting of construction works and services if such acquisition is effected with resources from state budgets, local authority budgets, states foundation funds, domestic or foreign loans guaranteed by the state, foreign aid as well as revenue received from the economic activity of state (PPOA, 2009). In this case public procurement entails the acquisition, usually by means of a contractual arrangement after public competition, of goods, services, works and other supplies by the public service. The process spans the whole life cycle from initial conception and definition of the needs of the public service through to the end of useful life of an asset.

According to PPOA (2009) the items involved in public procurement ranges from simple items or services such as clips or cleaning services to large commercial projects such as the development of infrastructure including roads, power stations and airports. Furthermore public procurement can equally mean the process of acquisition of goods, services and hiring contractors and consultants to carry out works and services. This includes rental, lease, hire purchase, license, tenancy, franchise or any other contractual acquisition of works, services and supplies.

In so far as public procurement has important economic and political implications, ensuring that the process is economical and efficient is crucial (PPOA, 2009). To achieve this it is required that the whole process is well understood by both the actors (the government, the procuring entities and the business community/suppliers) and the other stakeholders including professional associations, academic institutions and the general public.



According to PPOA (2009) the scope of public procurement covers;

- (a) Specification of the kind and quality of goods or service to be acquired or disposed ,
- (b) Investigation of the market for supply and contacts with potential suppliers or buyers,
- (c) Placing the order or contract ,including negotiation of terms,
- (d) Supervising delivery and performance, and taking necessary action in the event of inadequate performance,
- (e) Payment and
- (f) Dealing with any disputes

### **2.6.2 Public-Private Partnerships**

Ong'olo (2006) defines Public-Private Partnerships (PPPs) as institutional relationships between the state and the private for-profit and/or the private not for-profit sector, where the different public and private actors jointly participate in defining the objectives, the methods and the implementation of an agreement of cooperation. It is emphasized in the draft public procurement policy (2009) that of crucial importance to the partnership is a high degree of complementary aims, allowing both parties to maximize their synergy gains.

According to the draft public procurement policy (2009) the following are the common types of PPPs:

- (i) **Contracting Out (Outsourcing):** Describes all circumstances where an independent private entity is given responsibility for the daily services previously done by government. Here the private contractor does not necessarily finance the project.

**(ii) Joint Ventures:** In this arrangement companies are formed that are co-owned by the public and private sector, to which both parties contribute assets, finance and/or expertise. These businesses are established for a specific purpose and can either be long or short term.

**(iii) Private Sector Ownership into State-Owned Businesses:** A large range of options are available to involve the private sector companies into the delivery of public service by means of introducing ownership. For example, bringing in a strategic private sector partner or selling either a majority or minority share of a floated state-owned enterprise.

**(iv) Build Operate Transfer/Build Own Operate:** These arrangements entrusts the management of what is essentially a public service or facility to the private sector, with the private sector providing the necessary capital for a substantial asset. Besides the provision of capital, the private sector is responsible for the design, construction, and management of the facility.

Often the criteria used to choose the private partner for PPPs are more complex than just who offers the best price and who conforms to the technical specifications. PPPs emphasize the actual delivery phase of the project, while under a simple tender the government bears the responsibility for specifying exactly what it needs (Ong'olo, 2006)

### **2.6.3 Private procurement**

Procurement in the private sector, seeks merely to achieve efficiency and a good economic result for the buyer and the securing of the best price for goods and services is paramount (PPOA, 2009). Consequently, procurement in the private sector does not follow any firm procedure.

## **2.7 International urban redevelopment experiences**

In this section the study looked at urban redevelopment in other countries and this resulted into a deeper understanding on issues of urban redevelopment. This was also important as it facilitated in the coming up with feasible recommendations on addressing challenges of redevelopment towards the end of this study.

### **2.7.1 Redevelopment in Hong Kong**

Initially, urban renewal in Hong Kong was dominated by the private sector but in 1987, a new approach was introduced which promoted public-private partnership in carrying out comprehensive redevelopment (Broudehoux, 1994). A Land Development Corporation (LDC) an independent public body was made responsible for carrying out redevelopment projects using resources from the private sector. The purpose was to speed up private sector redevelopment in selected areas, to encourage the participation of landowners, to improve the quality and economic benefit of development by assembling larger sites, to ensure equitable treatment of the tenants, and to minimize government subsidies (Broudehoux, 1994). He points out that tenants were re-housed in units acquired by the Corporation near the redevelopment sites, and mortgages at a low interest rate were offered to the affected people to buy new homes.

Later on it is recorded by Law et al (2008) that in Hong Kong they approached redevelopment by the establishment of the Urban Renewal Authority (URA) in 2000 to replace the LDC that was charged with the mandate of implementing a new rigorous and comprehensive approach to overcome the problem of urban decay.

Law et al (2008) advises that there is need for higher level of participation by the public sector, private sector, civic society, and the general public in the planning, design, implementation, financing, and ownership of urban renewal process.

What we can learn from Hong Kong is that in order to speed up redevelopment; the process was driven by the public sector through the establishment of LCD and later on URA. Though driven by the public sector the private sector was appropriately involved through Public-Private Partnerships (PPPs). URA was able to address challenges of scarcity of sites for profitable redevelopment, lengthy land assembly process and the inadequacy of re-housing resources. It was clearly indicated that Urban redevelopment is taken seriously by the government.

### **2.7.2 Redevelopment in Seoul, South Korea**

Urban renewal has been a contentious issue in the recent few decades in Seoul. Urban renewal started off in the sixties to clear squatters for development. Clearance, compensation, resettlement, and even the development of new towns are hot issues arousing frequent conflicts reaching violence level and they and this has made them political issues (Law et al, 2008). What we can note is that comprehensive redevelopment can be very sensitive politically because of clearance, compensation levels and resettlement of occupants of potential redevelopment sites.

### **2.7.3 Redevelopment in Tokyo, Japan**

Urban renewal is seen as a major tool of economic development and is taken seriously by the Japan government at the highest level. Law et al (2008) point out recent efforts of urban renewal

spearheaded by the government's city revitalization panel formed in 2004 which was chaired by the Prime Minister and deputized by the Land Minister. The panel is tasked with crafting an urban renewal plan for the major cities including Tokyo and Osaka, as part of the government's economic stimulus measures through harnessing private-sector partnership. It is worth observing that in Japan urban renewal is taken seriously by the Government at the highest level because of the economic benefits that will be realized during and after the process.

#### **2.7.4 Redevelopment in Singapore**

According to Broudehoux (1994) the Urban Renewal Program in Singapore resulted in the redevelopment of all colonial neighborhoods, which consisted mainly of two- and three-story century-old shop houses, and in the relocation of all original residents and businesses. To reduce trauma of resettlement affected households were generally re-housed in public apartments under special arrangements and were given priority on the waiting list for public housing.

The Singapore Government was very keen on addressing the challenge of resettling the occupants of redevelopment sites and had a policy that no building can be demolished before alternative accommodations are allocated to its residents and this greatly reduced the trauma of resettlement. Institutionally they have an Urban Redevelopment Authority that is vested with the authority and responsibility of town planning, land policy, land acquisition, formation and sale, and the implementation of urban renewal programmes.

### **2.7.5 Redevelopment in the United States of America (U.S.A)**

According to Broudehoux (1994) the first comprehensive move of the federal government towards urban renewal came with the Housing Act of 1949. Urban renewal programme of 1949 was designed to remove slums and blighted conditions by demolishing old buildings and constructing new ones in their stead. Broudehoux (1994) also notes that in the urban renewal programme predominantly low-rent dwelling units were demolished to be replaced by high-rent ones which were out of reach by the initial tenants.

The U.S.A was among the first countries to develop specific national programs of urban renewal. One of the challenges is that the private sector was reluctant to participate in these programmes because projects took many years to complete and hence tying up capital for long periods. Other challenges are uncertain property markets; difficulty of land assembly; cost of redevelopment; and, negative neighborhood effects. The Government has come in to assist private redevelopment through use of eminent domain, development subsidies, and regulatory incentives.

### **2.7.6 Redevelopment in Durban, South Africa**

Investments valued at a staggering R1 billion have been pumped into Durban's inner-city Urban Development Zone (UDZ), arresting decay and contributing to the restoration of the city's high-profile business and residential status. A number of investors, taking advantage of the Government's Urban Development Zone tax-break scheme, have linked with the eThekweni Municipality, which has released certain strategic land parcels for redevelopment, to effectively change the face of Durban's Central Business District (CBD) (eThekweni Municipality, 2008) It

is worth observing that a number of investors were attracted by a Government's Urban Development Zone tax-break scheme and the availability strategic land parcels for redevelopment and because of such redevelopment initiatives were realized in a faster manner.

### **2.7.7 Redevelopment in Ethiopia**

In Ethiopia one of the challenges of integrated redevelopment activities is eviction of the poor to the peripheries where they do not have any means of survival. One of the successes of the projects of redevelopment in Addis Ababa is its ability to maintain the livelihood of the poor in the city center where their day-to-day activity is strongly attached. The fact that almost all the housing projects takes place in the city center has created them the opportunity to remain there and benefit from the redevelopment activities and other assets of the city center. Though temporary relocation is inevitable the program avoids permanent relocation of residents. This effort prevents further widespread of urban poverty (Haregewoin, 2007). Redevelopment in Addis Ababa has not resulted in the displacement of the poor who depend strongly on the city center where their day-to-day socio-economic activities are based.

## **2.8 Urban redevelopment initiatives in Kenya**

### **2.8.1 Transformation of Kilimani estate, Nairobi**

Rutto (2009) observes that originally the area was exclusive low density residential. Kilimani was originally a residential neighborhood with predominantly maisonettes developed on half acre plots (Rutto, 2009). The area originally accommodated a total of 1,500 half acre plots with maisonettes complete with servant quarters. The revision of planning standards from the 1990s allowed densification and the half acre plots began to be sub divided. The aforementioned

revised development standard led to the subsequent conversion of existing residential units into commercial activities and establishment of new high rise commercial and residential buildings. According to Rutto (2009) the demand for offices in Kilimani can be attributed to various factors such as lack of appropriate office space, in adequate car parking facilities, general congestion, high rents, noise pollution and air pollution in the CBD. In general, these factors in concert have contributed to the relocation of offices and other non- residential uses outside the CBD to the environments such as Kilimani.

Rutto (2009) advises that this scenario necessitates a planning intervention that would guide and harmonize the development in the area. Furthermore he points out that, changes in development densities without an increased investment in infrastructure and services is one of the factors that have contributed to problems such as unreliable and frequent water shortages coupled with bursting sewers. Another challenge associated with the transformation of Kilimani is that although the CCN has stipulated in its zoning regulations that residential development in the area should not exceed four floors there are various blocks of apartments which have contravened this regulation.

### **2.8.2 Redevelopment of east CBD, Nairobi**

This area is bounded by the Tom Mboya Street to the east, Haile Selassie Avenue to the the south, Race Course and Kirinyaga Roads to the east and north-east respectively. The main land uses in the area are: commercial, office, residential and transportation. Odero (1988) notes that this East CBD area underwent some redevelopment between 1979 and 1987 whereby a total of 23 buildings were demolished and reconstruction carried out. The 1979 rezoning plan policy



strategy had as one of its objective as; 'creation of incentives for redevelopment of derelict areas of the CBD' (Odero, 1988). He further notes that besides articulating concern for the persistent blight conditions in the East CBD the policy objective was translated to such measures as an increase in plot ratio and site coverage. He established that redevelopment was then an active process in East CBD and he proceeded to determine how much redevelopment can be expected to occur up to 2000. However he warns that while congestion, in accessibility and inadequate parking spaces may necessitate drastic or premature redevelopment of valuable sites in the CBD, the consequences and concomitants of redevelopment may obliterate or exacerbate these difficulties.

### **2.8.3 Case of Pumwani and Kibera High rise flats, Nairobi**

According to Muraya (2006) the government introduced new and drastic measures to ease the housing shortage in urban areas by launching the Urban Renewal Programme in 1987. The programme was to redevelop low-income housing areas, build high rise flats and phase out both the sites and services schemes and the upgrading of squatter settlements. Under the Urban Renewal Programme, Pumwani- Majengo High Rise Flats Phase I was completed in 1989, and Kibera High Rise Flats Phase I was completed in 1991, providing a total of 1,266 housing units. Shihembesta (1995) notes that in the Pumwani redevelopment; it was argued that more people could be accommodated on a unit area thus reducing the cost of each dwelling unit. In this case the repayment of mortgage even after being highly subsidized by the Government remained beyond the low income bracket.

Further on in 1994 more housing units became available after the completion of the Kibera Phase II tenant purchase scheme. Kibera High Rise Project was initiated in the 1990s by National Housing Corporation (NHC). This project was originally intended to provide housing for the benefit of Kibera's residents however the housing units were designed to middle-income standards. Consequently these housing units came to be assigned to middle-income groups. (WOAT, 2007)

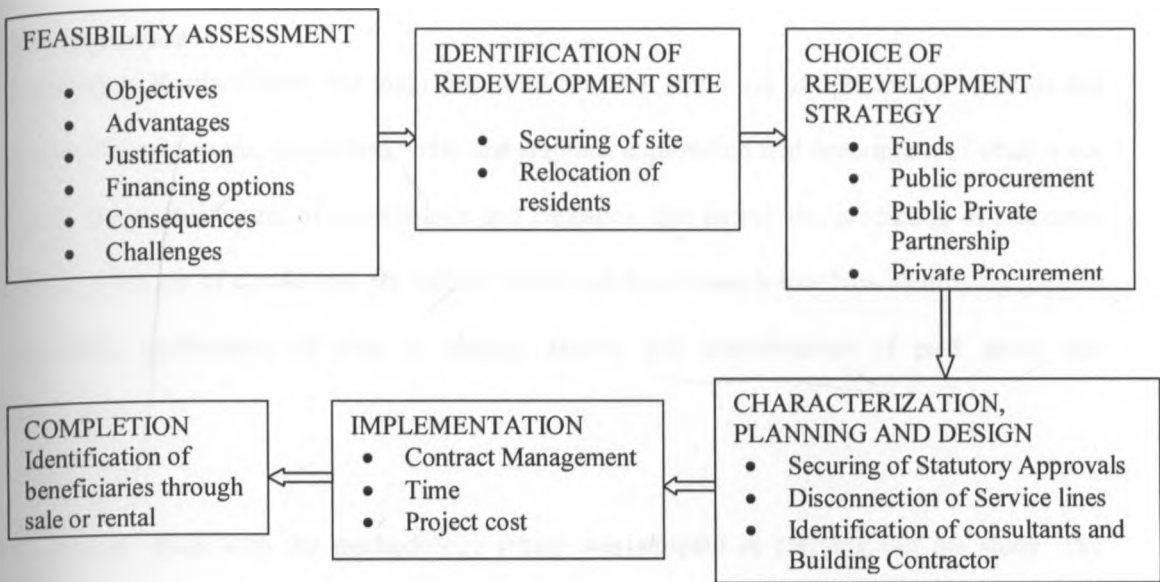
### **2.9 Conceptual framework for urban redevelopment**

In the foregoing literature review the main issues that will determine the accomplishment of urban redevelopment are feasibility assessment ; identification of redevelopment site; choice of redevelopment strategy; characterization, planning and design; implementation; and completion. This is clearly depicted in chart 2.3.

- a) **Feasibility assessment:** This is whereby a land owner carries out an in- depth analysis on objectives, advantages, justification, financing options, consequences and possible challenges of his redevelopment. Leney (2008) advises that before the final decision is made on whether to redevelop or not the project should be economically, socially and politically viable and sustainable.
  
- b) **Identification of redevelopment site:** During this stage it is prudent for the land owner to be in possession of the necessary title documents to his property. This will facilitate the commencement of redevelopment plans as no serious commitment can be done in the absence of title documents. In this respect Syagga (2002) advises that the most essential objective of any urban land policy should be to secure enough land, with services and in

the urban areas. The residents of redevelopment sites should be prepared well in advance and facilitated in relocation. Critical issue is to assess the capability of the residents of redevelopment sites to access redeveloped housing units. It is also necessary to address security concerns as this will keep away vandals and trespassers.

- c) **Choice of redevelopment strategy:** The three available strategies are Public procurement, Public Private Partnership and Private Procurement. The choice will largely depend on the available funds for redevelopment.
  
- d) **Characterization, planning and design:** It is during this stage that the land owner identifies and engages consultants and contractor to implement the redevelopment project. Necessary and mandatory statutory approvals should be acquired on time. Existing sewer, water and telephone lines should be disconnected by the respective providers before the handing over of the redevelopment site to the contractor.
  
- e) **Implementation:** The land owner and consultants should ensure that the redevelopment project is undertaken to the shape, size and quality as depicted on the architect's drawings and specification and within the contract's time frame.
  
- f) **Completion:** Beneficiaries ought to be identified on completion of the redevelopment project. The beneficiaries can access the redeveloped housing units either as purchasers or renters. They are usually expected to meet the affordability requirements.



**KEY:**  Sequence of activities

**Chart 2.3: Conceptual framework for urban redevelopment**

**Source: Author (2011)**

**2.10 Conclusion**

Redevelopment is a process starting from when a developer has identified a potential site for redevelopment all the way to post redevelopment stage. The potential redevelopers need to gain an understanding of the redevelopment process while focusing on the various inputs and outputs at every stage. They need also to note that challenges of redevelopment will arise in some stages and hence they should be prepared to address them. Once they have addressed the challenges they will be in a position to attain their redevelopment objectives.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

According to Kumar (2005) the main feature of research is the use of appropriate methods and involves the systematic, controlled, valid and rigorous exploration and description of what is not known and establishment of associations and causation that permit the prediction of outcomes under a given set of conditions. He further points out that research involves identifying gaps in knowledge, verification of what is already known and identification of past errors and limitations.

This chapter deals with the methodology which was adopted in carrying out the study. The research utilized a case study research methodology in order to address the research objectives. The study delved on CSHSF and KRSRBS as the case studies within the study area of Ngara. Data and information in respect to CSHSF and KRSRBS attempts to comprehensively redevelop their land parcels was availed. This was achieved through the various data collection methods used in the study such as open ended interviews, observation and going through relevant documents. The study was able to pick various challenges that CSHSF and KRSRBS have faced; continue to face; or are likely to face in their attempts to carry out redevelopment. In order to realize the study objectives the study utilized a multiple case study design. There is a description of how the sample was arrived at, how data was collected, presented and analyzed.

Yin (2003) defines a case study as an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident. According to Stake (1995) case study is the study of the

particularity and complexity of a single case and coming to understand its activity within important circumstances. Zainal (2007) points out that case study method enables a researcher to closely examine the data within a specific context. Furthermore in most cases, a case study method selects a small geographical area or a very limited number of individuals as the subjects of study. Zainal (2007) is of the opinion that case studies, in their true essence, explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions, and their relationships.

By including both quantitative and qualitative data, case study helps explain both the process and outcome of a phenomenon through complete observation, reconstruction and analysis of the cases under investigation. From the foregoing case study methodology was ideal in this research because of the need to appreciate the uniqueness and complexity of my cases in far as their initiatives to carry out redevelopment were concerned. The contemporary social phenomenon in this study is neighborhood change of Ngara estate whereby single family houses on their individual plots are being replaced by high rise block of flats. The study was characterized by many variables of interest; multiple sources of evidence; theoretical propositions that were a guide in the collection and analysis of data.

Stake (1995) indicates that the design of all research requires conceptual organization, ideas to express needed understanding, conceptual bridges from what is already known, cognitive structures to guide data gathering and outlines for presenting interpretation. Based on this understanding there is use of issues as conceptual structure and issue questions as primary

research questions. Identification of issues drew my attention to the challenges and concerns in redevelopment initiatives by CSHSF and KRSRBS.

### **3.2 Research design**

Yin (2003) defines research design as the logical sequence that connects the empirical data to a study's initial research questions and ultimately to its conclusions. It is a plan that guides the researcher in the process of collecting, analyzing and interpreting observations. A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems (Kerlinger, 1986). According to Thyer (1993) a traditional research design is a blue print or detailed plan for how a research study is to be completed; operationalizing variables so they can be measured; selecting a sample of interest to study; collecting data to be used as a basis for testing hypotheses; and analyzing the results.

The following are components of Research Design for Ngara;

- a) Construction of Study Questions geared towards redevelopment needs, challenges and recommendations on how to address the identified challenges.
- b) Study propositions: This entailed having in place study objectives that were specific and point out to the area of study. The objectives revolved around redevelopment initiative by the CSHSF and KRSRBS and the challenges encountered in their initiatives.
- c) Unit of analysis: The units of analysis are the CSHSF and KRSRBS and the challenges they have and continue to encounter in their attempts in redeveloping their land parcels in Ngara. Data collection, presentation and analysis revolved around the entire process of

redevelopment starting right from the acquisition of a redevelopment site and all the way to the identification and allocation to the intended beneficiaries.

Yin (2003) identifies the following two types of case study designs:

- a) Single case design: This is where a single case is the representative or typical case.
- b) Multiple – case design: This is where the study contains more than one case. This study followed a multiple- case design. This study looked at the redevelopment challenges encountered by CSHSF and KRSRBS in their attempts to redevelop their respective land parcels. Whereas the CSHSF has utilized the public procurement strategy, KRSRBS are using the joint venture in which they endeavour to partner with the private sector in order to attain comprehensive redevelopment of their land parcel.



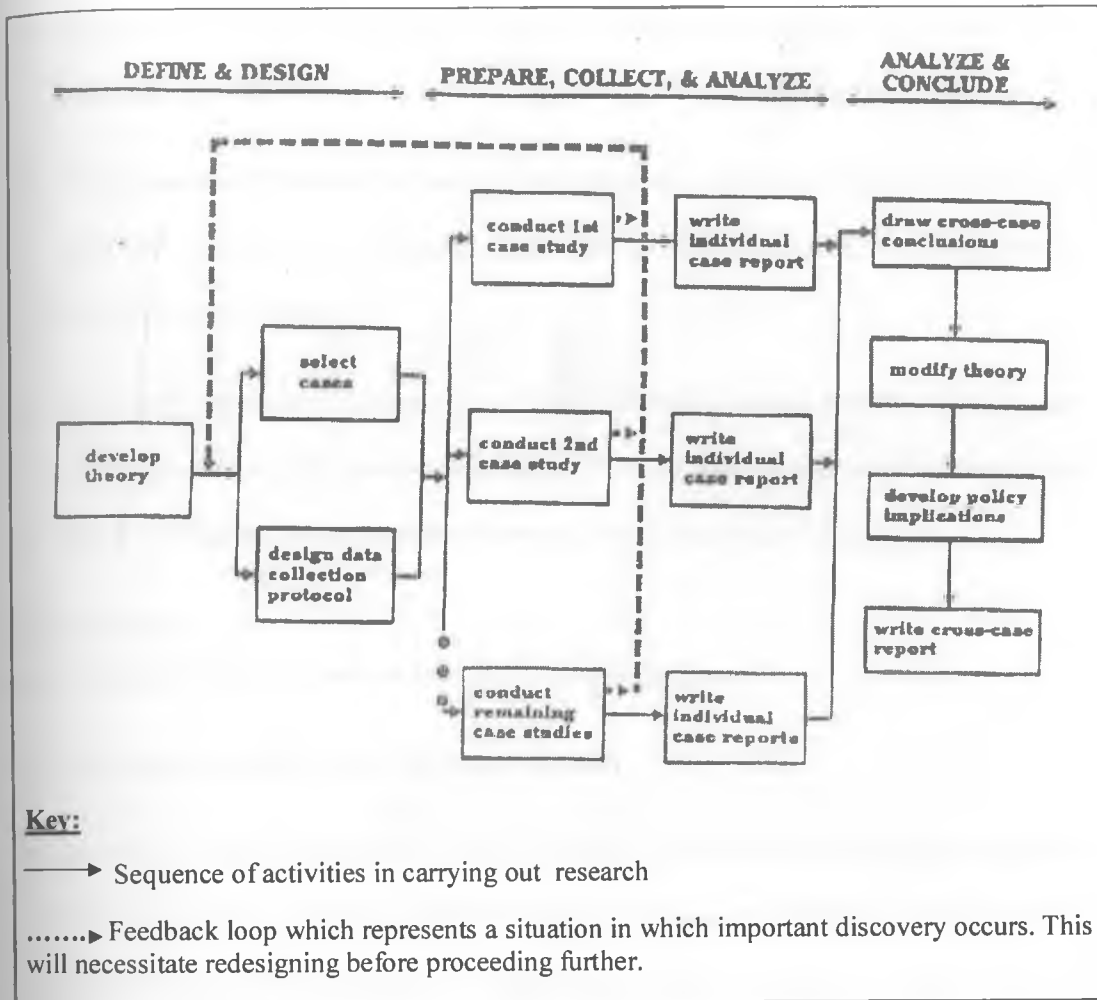


Chart 3.1: Multiple – Case design stages

Source: Yin (2003, p.50)

I prepared a protocol to guide me in carrying out the data collection and as a way of increasing the reliability of the case study research. The protocol covered the following sections:

- a) Overview of the case study research on urban redevelopment challenges by the CSHSF and KRSRBS that indicated objectives, issues and relevant literature about the study.
- b) Field procedures: Showing the ways of accessing the case study sites of the CSHSF and KRSRBS in Ngara. This entailed observation on the ground about their extent of redevelopment initiatives.
- c) Case study questions: Construction of Study Questions geared towards redevelopment needs, challenges and recommendations on how to address the identified challenges which facilitated the acquisition of relevant information for the Study.

### **3.3 Data sources**

Data Collection for this study was realized from the following sources;

- a) Documents availed by the CSHSF and KRSRBS
- b) Interviews: I interviewed officers from the CSHSF, KRSRBS, CCN, AWSB, Institute of Quantity Surveyors of Kenya (IQSK), Ministry of Lands and Ministry of Public Service (Office of the Prime Minister). I adopted open ended interviews in most cases and whereby I sought facts and opinions from these officers. During interviews of officers from CSHSF and KRSRBS I prepared the following questions that guided me through the interviews.

(i) Why did you decide to redevelop your land parcel in Ngara?

(ii) Elaborate on the strategy you are following in your redevelopment initiative?

(iii)What are the challenges you have encountered, are encountering or are likely to encounter in your redevelopment initiative?

- c) Direct observations: This was achieved by making field visits to areas belonging to CSHSF and KRSRBS. A general observation of the availability infrastructural services and social amenities in the immediate neighborhood was also undertaken to establish their availability and adequacy now and after redevelopment.
- d) Participant observation: In this study I am a participant observer because I am deployed in the CSHSF Estate management section.
- e) I carried out a review of the existing literature on urban growth and deterioration, forms of changing the urban built environment that include (regeneration, revitalization, renewal, redevelopment, rehabilitation and integration), urban redevelopment, approaches to urban redevelopment, objectives of redevelopment, criteria for redevelopment, factors justifying the need for redevelopment, redevelopment process, effects of redevelopment, challenges of redevelopment, redevelopment in other countries and land related matters in redevelopment. Analysis of the relevant Government papers and acts of parliament was undertaken. I looked at textbooks, journals, maps, research thesis and newspapers.

Primary data for this research was realized from interviews of officers from CSHSF and KRSRBS who gave information on their attempts on redevelopment and the challenges they have or are encountering in the process of redevelopment. In the CSHSF the Director and

officers drawn from the estate development and management sections were interviewed. For KRSRBS officers dealing with estate management of their properties were interviewed. Field surveys were carried out in Ngara with a view of establishing the type of land uses, infrastructural and social amenities among other factors and issues. Furthermore extensive observation was carried out on the condition of the houses, infrastructure and social amenities. A camera was utilized to capture features that will inform the study.

CCN officers were interviewed with a view of getting information about the applicable development control instruments. This was necessary to establish what kind of development is permissible in the area. I also interviewed officers from AWSB and got information about the provision and management of water and sewerage infrastructure. I was able to get information from IQSK on the trends in cost estimates over the last three years that will inform the study on how much it should cost to carry out redevelopment. I was able to get information on the number of civil servants per job group from the Ministry of Public Service.

### **3.4 Sampling techniques and tools**

The study applied purposive or judgmental, also known as non-probability sampling. Non-probability sampling is ideal when a researcher is not interested in selecting a sample that is a representative of the population (Mugenda and Mugenda, 2003). From the various types of Non-probability sampling I found Purposive or judgemental sampling to be appropriate for my research. According to Mugenda and Mugenda (2003) purposive sampling is a non-probability sampling technique that allows a researcher to use cases that have the required information with respect to the objectives of his or her study. Kumar (2005) concurs with the Mugendas that the

primary consideration in purposive sampling is the judgement of the researcher as to who can provide the best information to achieve the objectives of the study. I identified the CSHSF and KRSRBS because they are informative and possessed the required characteristics I was researching on. The following are two forms of purposive sampling;

- a) Extreme or deviate case sampling is a method whose main concern is dealing with extreme cases.
- b) Intensity sampling whereby cases that manifest the characteristics intensively are picked.

In carrying out this study I have adopted intensity purposive sampling technique whereby I have picked on CSHSF and KRSRBS two public institutions that own land in this area. The CSHSF owns 15 acres whereas KRSRBS owns 43 acres.

For the purpose of this research I divided the area into the following sections:

- **Section A:** Area on the East which is bounded by Murang'a Road, Park Road and Desai Road. The land parcel belonging to KRSRBS falls within this section (Map 4.8).
- **Section B:** Area on the South West which is enclosed by Murang'a Road, Ngara Road and Desai Road. The land parcel belonging to CSHSF falls within this section (Map 4.9)
- **Section C:** Area on the North West which is delineated by Murang'a Road, Forest Road and Desai Road (Map 4.10)

The officers interviewed from CSHSF and KRSRBS were directly picked based on their duties and responsibilities in their respective institutions. Their participation in the redevelopment initiative in Ngara was important and resulted in their selection for interview purpose for this study.

### **3.5 Data analysis**

Yin (2003) indicates that data analysis consists of examining, categorizing, tabulating, testing or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of a study. Furthermore he points out that to explain a phenomenon is to stipulate a presumed set of causal links about it. This case study was to a large extent explanatory in form.

The study has adopted the technique of analyzing case studies referred to as explanation building. In this case the goal is to analyze the case study by building an explanation about the case that links to public policy and/or social science theory. In this study my objective was to analyze the case studies by building explanations about the challenges of redevelopment by the CSHSF and KRSRBS.

### **3.6 Conclusion**

I followed the case study research methodology because my focus was on the CSHSF and KRSRBS projects in Ngara. I believed that by looking at their strategies of redevelopment I will be able to find out their needs and challenges of redevelopment. However the limitation of case study research methodology is that the research findings may not apply to other cases in the area. For instance in this study the findings in this study may not apply to private land owners in Ngara.

## **CHAPTER FOUR: BACKGROUND TO THE STUDY AREA.**

### **4.1 Introduction**

This chapter discusses the study area whereby the History of Nairobi and Ngara is looked at in detail. I also looked at the location of Nairobi and Ngara; the current population of Nairobi and Ngara; the topography of Nairobi and Ngara; the kind of soils found in Nairobi and Ngara; and the prevailing climatic conditions of Nairobi.

### **4.2 History of Nairobi**

The decision to build a railway linking Uganda with the coast was taken in 1895 and work started in 1896 and by 1899 had reached a point 327 miles from Mombasa. Kisumu the destination of the railway lay a further 257 miles to the Northwest. Behind lay the relatively easy terrain of the Athi plains, a head lay much steeper slopes and the Rift Valley escarpment presenting great construction problems (Morgan, 1967). A suitable point for descending the escarpments was essential. To the North was the Aberdare Range and to the South were the Ngong Hills and this became the obvious choice (Morgan, 1967).

Upstream in the Nairobi there was a water supply which was adequate and further South beyond the Mbagathi streams were seasonal only. Topographically there was ample level land on the edge of the plains for tracks, sidings and the impediment of a railway, yet close at hand was an elevated cooler area suitable for the houses of senior officials. Thus it was that the physical characteristics of the site and its relationship with the surrounding country combined to make Nairobi an excellent choice for the purpose for which it was intended (Morgan, 1967). According to King'oriah (1980) the area occupied by the city of Nairobi today has been described as a physical and ecological frontier between a savanna type of ecosystem and the mountain slope

type. He further notes that before the founding of the city of Nairobi by the Europeans this area was an ethnic front; a boundary between the Kikuyu, the Masai and the Kamba tribes. On the opening of the railway in August 1899 the government administration of Ukamba Province at Machakos was transferred to Nairobi.

Following its establishment in 1899 as a railway depot Nairobi soon became a communications centre and the Headquarters of the Provincial Administration (CCN,1973). The community's permanence was confirmed in 1905 when it became the capital of the country with a population of about ten thousand. With the completion of the railway, the headquarters of the colonial administration was moved from Mombasa to the cooler, small settlement of Nairobi. Now, as the capital of the British Protectorate, the future of the city on the swamp was assured. The city expanded, supported by the growth in administrative functions and in tourism, initially in the form of British big game hunting. As the British colonialists explored the region, they began using Nairobi as their first stop. Thereafter the importance and size of the town increased steadily and in 1919 Nairobi became an Incorporated Municipality (CCN,1973). In 1948 the master plan for Nairobi was prepared by the Nairobi Municipal Council as a first major town planning concept to promote Land use control. It earmarked Land for residential, industrial, commercial and other uses and introduced the principle of neighborhood units and planned road network. In 1950 Nairobi Municipal council was incorporated by a Royal charter making Nairobi the only city in Kenya. It is worth pointing out that the city boundaries have been expanded progressively over time.



Following independence in 1963 the boundaries of the city were enlarged from the 'Old City' area of 90 Square Kilometres to embrace an area of 690 Square Kilometres including Nairobi's Peri Urban settlements and certain other important features such as the Game park, Embakasi Airport and a large area of ranching land in the East (CCN, 1973). The aim of this boundary extension was to give the city adequate reserve land for future expansion.

According to Olima and Onyango (2008) Nairobi is in many ways an archetype of the African colonial city, having purely colonial origins, which shaped its structure and management at the time of Kenya's transition to independence. In this respect the different residential locations in Nairobi still depict the segregation based on race and ethnicity brought about by the spatial organization in the early stages of the development of the city.

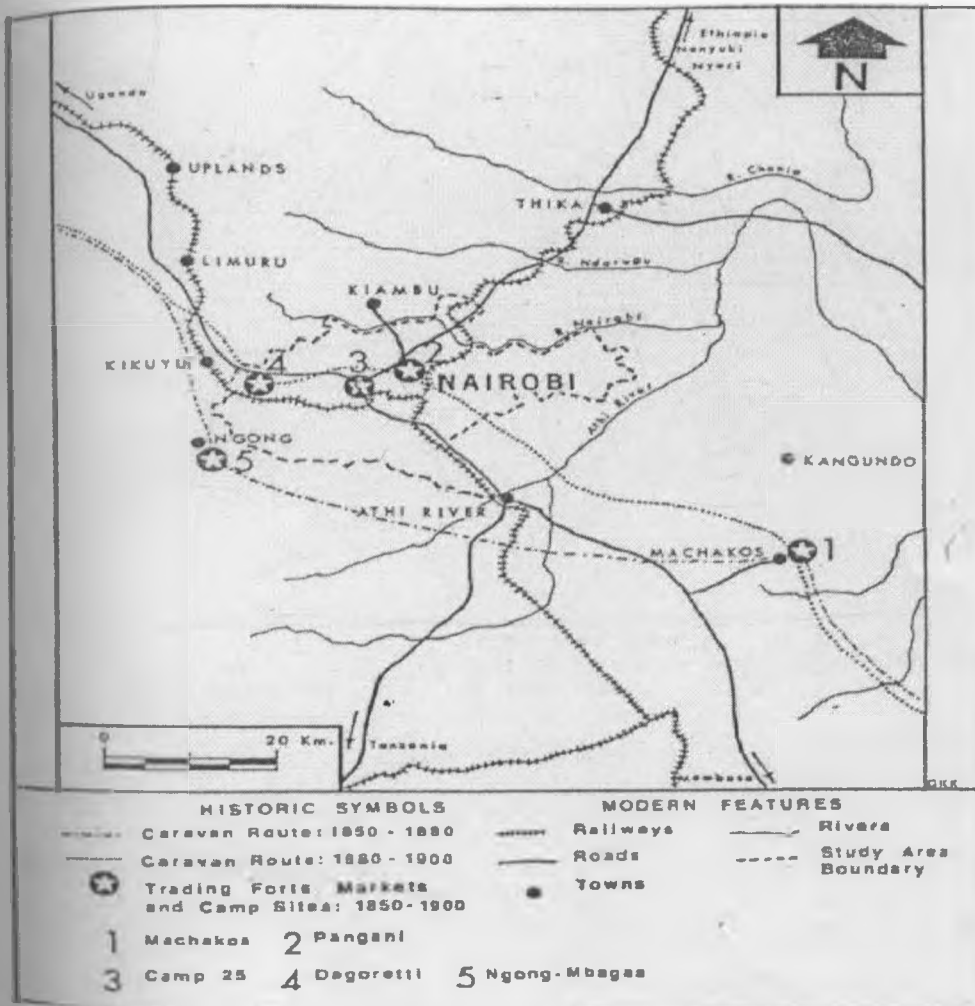
#### **4.3 History of Ngara**

After the Berlin conference of 1885 the British delegated the administration of their sphere of influence which included Uganda, modern Kenya and western Somalia to a trading concern, a private company by the name of the Imperial British East Africa Company (I.B.E.A) (King'oriah, 1980). The company chartered in 1888 began an enormous task of collecting trading items such as ivory, ostrich feathers, rhino horns, animal skins and exporting these to Britain and Western Europe.

I.B.E.A. officials built a number of trading 'forts' along the main caravan route to Uganda that crisscrossed Nairobi in several places (See Map 4.1). According to King'oriah (1980) several caravans that passed through Nairobi usually crossed the river down stream and more to the

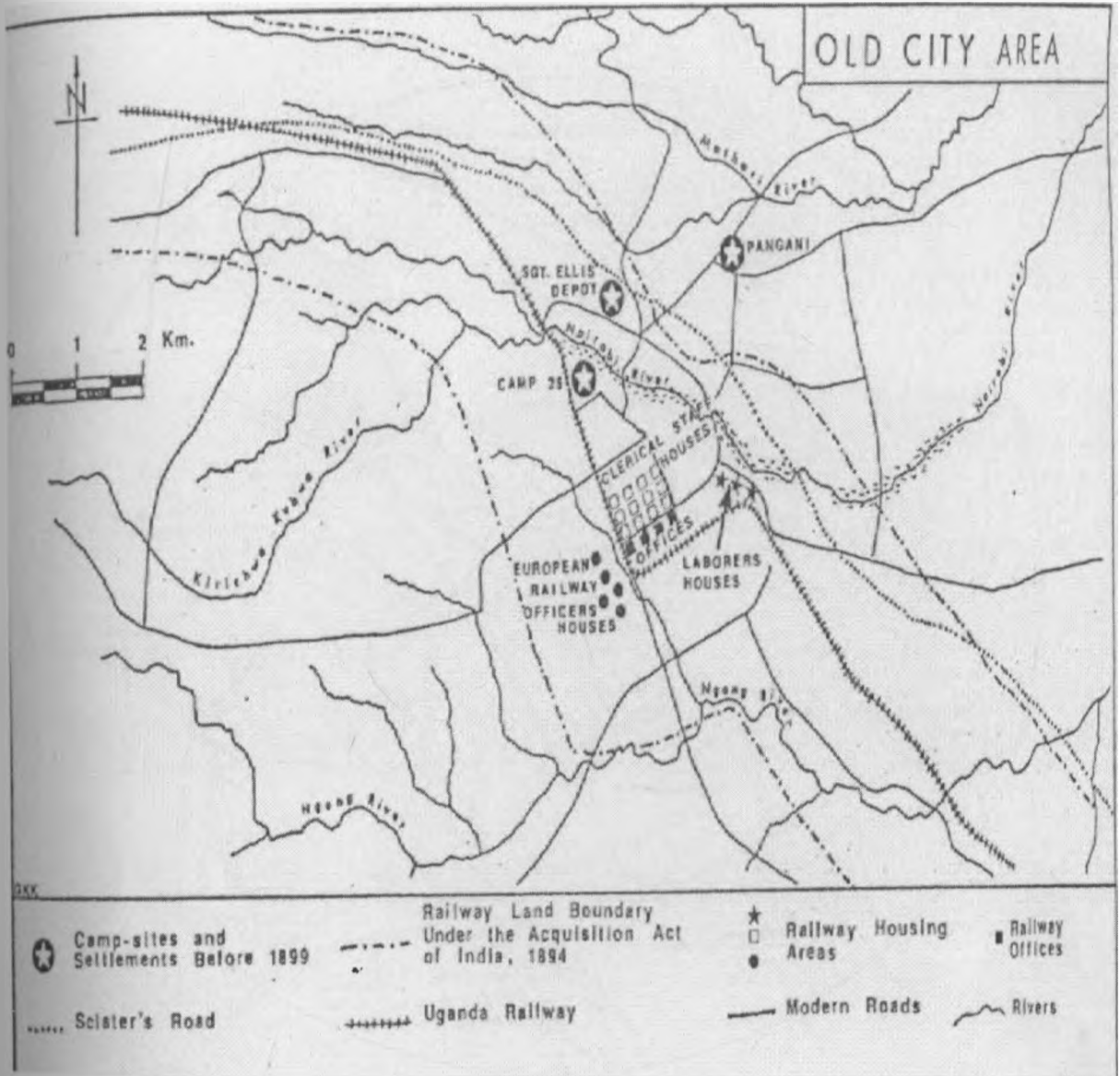
south east at the present Kamukunji grounds south of Pumwani. In 1890 a camp site developed on this route north of Pumwani and was called Pangani. Pangani became a lodging centre for porters and became a thriving market settled permanently by the kikuyu in a large native village. (See Map 4.2)

**Map 4.1: Caravan Routes, camp Sites and Trading Posts in the Nairobi Region (1850-1900)**



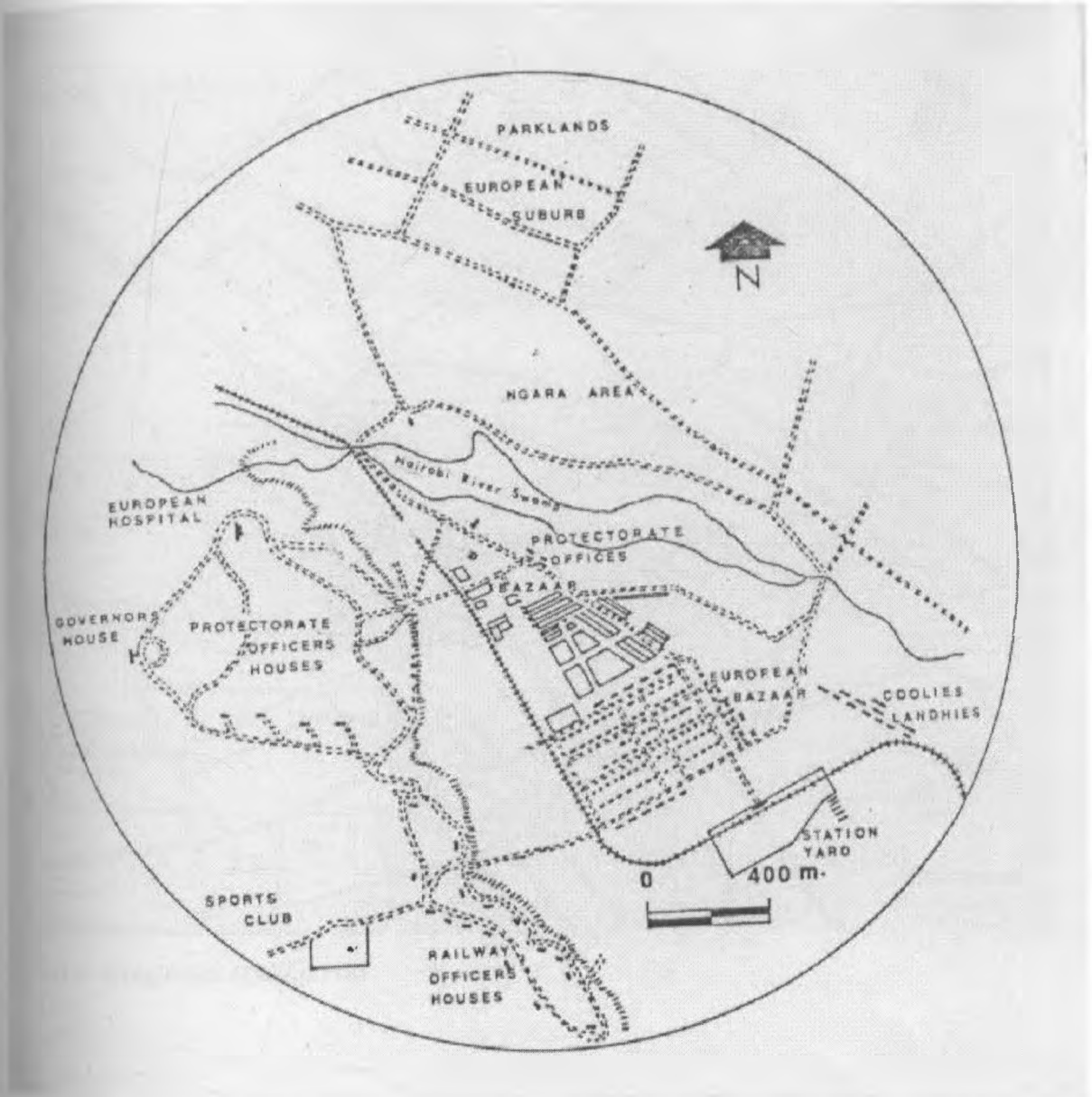
Source: King'oriah (1980,p.94)

Map 4.2: The Railway Center, Railway Land, Settlements and Camp Sites in Central Nairobi, 1899



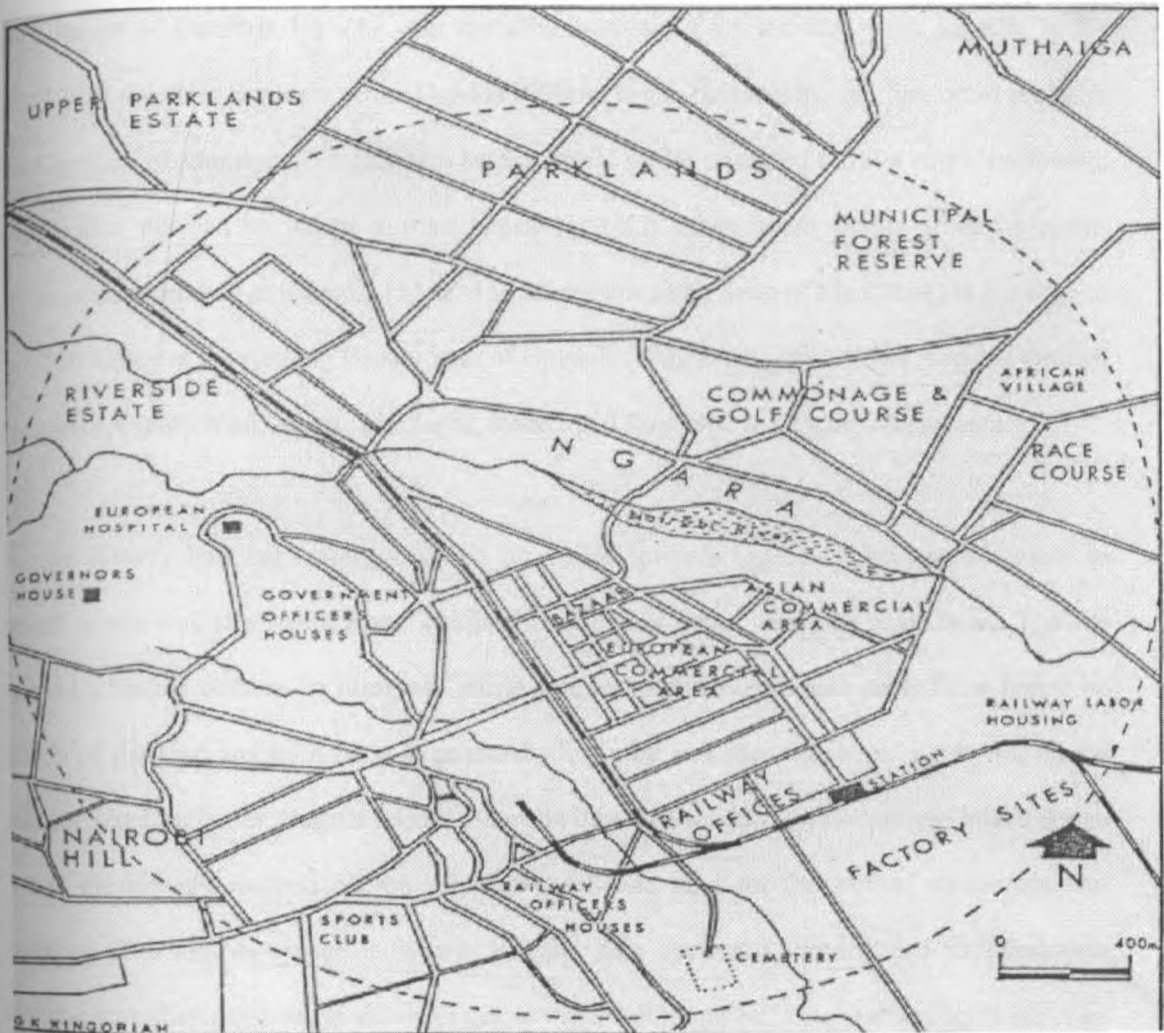
Source: King'oriah (1980,p.66)

Map 4.3: The Nairobi Township and Central Business District in 1905



Source: Morgan (1967,p.102)

Map 4.4: Nairobi Township and Central Business District in December 1917



Source: King'oriah (1980,p.118)

In 1895 the British East Africa Protectorate was proclaimed and Consul-General headquartered in sultanate of Zanzibar. He took over the administration of the territory from I.B.E.A. In the same year the chief Engineer of the Uganda Railway began building the rail line from the Arab harbor town of Mombasa. To facilitate better control of the proposed railway route the foreign office also decided to extent a road began by I.B.E.A ten years before from its north-westernmost terminal at Kibwezi ( about 150 kilometres south –east of Machakos) to the edge of the Rift valley at the Kedong Brook, west of Uplands (King'oriah ,1980). This road ran through Pumwani, Quarry road, Ngara, Westlands, Kabete and Dagoretti within the old city area.

As the railway building commenced and proceeded towards Uganda it became necessary to select a mid way site where a well equiped maintenance depot would be constructed. The site needed a healthy climate for European railway engineers and subordinate staff. There had to be plenty of flat land around it for a large marshalling yard and adequate water supply for all the railway depot activities. Nairobi had all these and therefore selected for the railway inland depot. When the railway reached Nairobi in 1899 sufficient land for the railway operations was acquired. The kikuyu village in Ngara- Pangani area continued thriving and its inhabitants became more heterogenous in ethnic origin as the Swahili and Sudanese porters from the coast and other immigrants settled there in attracted by the growing railway town. Later on the village was demolished by the Government to give way to an Asian residential area in the 1930's. (King'oriah ,1980)

In 1896 a transport depot was constructed in the present Ngara area near the present Jamhuri High School. It was not clear whether the depot was a commercial enterprise or not but eye

witnesses accounts indicate that it was a depot for the Ugandan Government. The Ngara-Pangani area was a better site for the nucleation and growth of urban activities than the grassy plains in other areas. The provincial headquarters were transferred from Machakos to Nairobi in 1899 and this was found necessary because of the community that was growing very fast around the new railway station (King'oriah, 1980). The high ground to the north of the Nairobi swamp (Western Ngara) was chosen and subsequently there was inauguration of a scheme for the construction of Government offices (See Map 4.3). Residential Quarters and later a shopping area were constructed in Eastern Ngara area. Sub division scheme for commercial enterprises were laid while reserving specific areas of land for native locations.

It looked as if the Ngara-Pangani area would have formed a nucleus of a Central Business District (CBD) in absence of a more powerful influence of a railway complex which formed on the plain about one and a half kilometers to the south. However the future land use pattern in this area and in the entire city was to be determined by events which followed the establishment of a railway station and depot. This development created two growth nuclei in the new town; the 'Boma' ( meaning the administrative 'fort' with its shopping centre in the Ngara area) and the railway complex south of the Nairobi river swamp. The sub division scheme for Ngara never materialized because the booming railway complex attracted the commercial enterprises to their part of town.

To cope with the growth challenges of Nairobi a Nairobi Municipal Committee (NMC) was created in April 1900. Later on in 1900 the old protectorate offices in upper Ngara were abandoned and given to Indian washermen to use for laundry and residential purposes. In 1901

NMC was empowered by regulations to raise revenue by way of rates and to provide police protection, lighting and environmental services to inhabitants. The NMC was unable to carry out the necessary tasks and this resulted in a plague that broke out in a Bazaar area in the current Jeeva njee neighborhood in 1902 that claimed 50 lives (See Map 4.3 and 4.4). The NMC burned out the slum after evacuating the people and their properties. Other plagues followed in 1904, 1912 and 1913 in the Bazaar. A report was done in 1906 recommending the relocation of the Asians in the Bazaar but this did not happen because of high value of the land that would have formed the basis of compensation to the Asian community.

In 1913 in another report the removal of the Bazaar and its relocation to Ngara was recommended. When the First World War broke out in 1914 it became impossible to remove the Bazaar as recommended. However plans for developing an Asian residential area were initiated and resulted in the present Ngara residential area which remained predominantly Asian until 1968. Ngara is among the last remaining historic neighbourhoods in the city. In its heyday, it was characterized by a truly urban culture where commercial and residential activities took place simultaneously, often from the same building. In the tradition of typical Indian bazaar, traders lived and worked in the same place, doing business on the side facing the street and living upstairs.

In Map 4.5 as at this point in time;

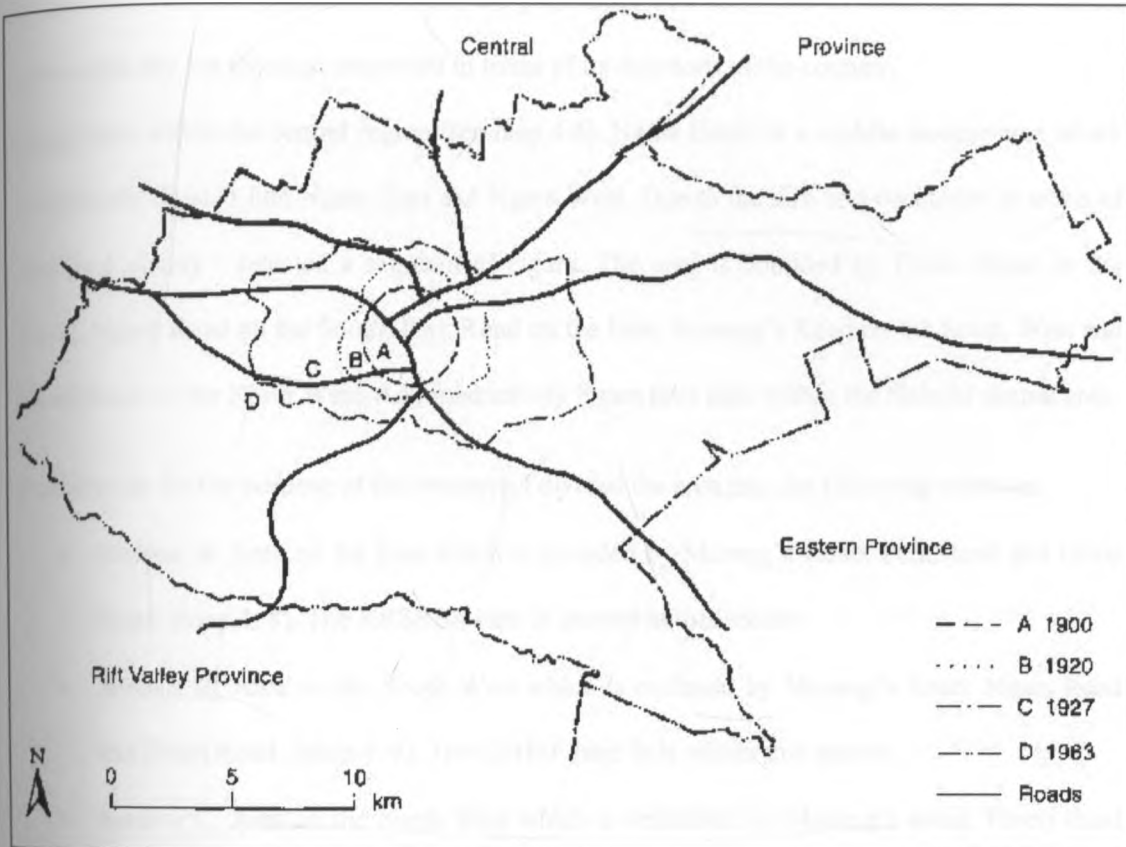
- (i) Zone A shows the Central Business District (CBD)
- (ii) Zone B shows the Inner city areas
- (iii) Zone C shows the Inner Suburbs



(iv) Zone D shows the Outer Suburb

(v) Beyond D shows the Rural Urban Fringe

**Map 4.5: Boundary changes of Nairobi from 1900-1963.**



Source: Obudho and Aduwo (1992, pp53)

#### **4.4 Location of Nairobi and Ngara**

Nairobi city is centrally located in Kenya about 36.59 degrees east of the Greenwich Meridian and 1.19 degrees south of the equator. It covers an approximate area of 690 Km<sup>2</sup> and according to the 2009 National population census the population was 3,138,369 in 2009. It is the smallest geographically yet the most important in terms of its functions in the country.

Ngara falls within the central region (see map 4.6). Ngara Estate is a middle income area which is distinctly divided into Ngara East and Ngara West. Due to the size and constraint in terms of time and money I selected a segment of Ngara. The area is bounded by Forest Road on the North, Ngara Road on the South, Park Road on the East, Murang'a Road on the South West and Desai Road on the North West. Administratively Ngara area falls within the Nairobi central area.

Furthermore for the purpose of this research I divided the area into the following sections:

- **Section A:** Area on the East which is bounded by Murang'a Road, Park Road and Desai Road. (Map 4. 8). The KRSRBS land is located in this section.
- **Section B:** Area on the South West which is enclosed by Murang'a Road, Ngara Road and Desai Road. (Map 4. 9). The CSHSF land falls within this section.
- **Section C:** Area on the North West which is delineated by Murang'a Road, Forest Road and Desai Road (Map 4.10)

#### 4.5 Population of Nairobi and Ngara

The following table shows the Population of Nairobi and Ngara in 2009.

**Table 4.1: Population of Nairobi and Ngara**

Area	Population	Households	Household Size	Area (Km <sup>2</sup> )	Population Density
Nairobi	3,138,368	985,016	3.2	695.1	4,515
Ngara	25,354	7,749	3.3	2.6	9,797
Ngara East	15,583	5,067	3.1	1.3	11,931
Ngara West	9,771	2,682	3.6	1.3	7,623

Source: (KNBS, 2010)

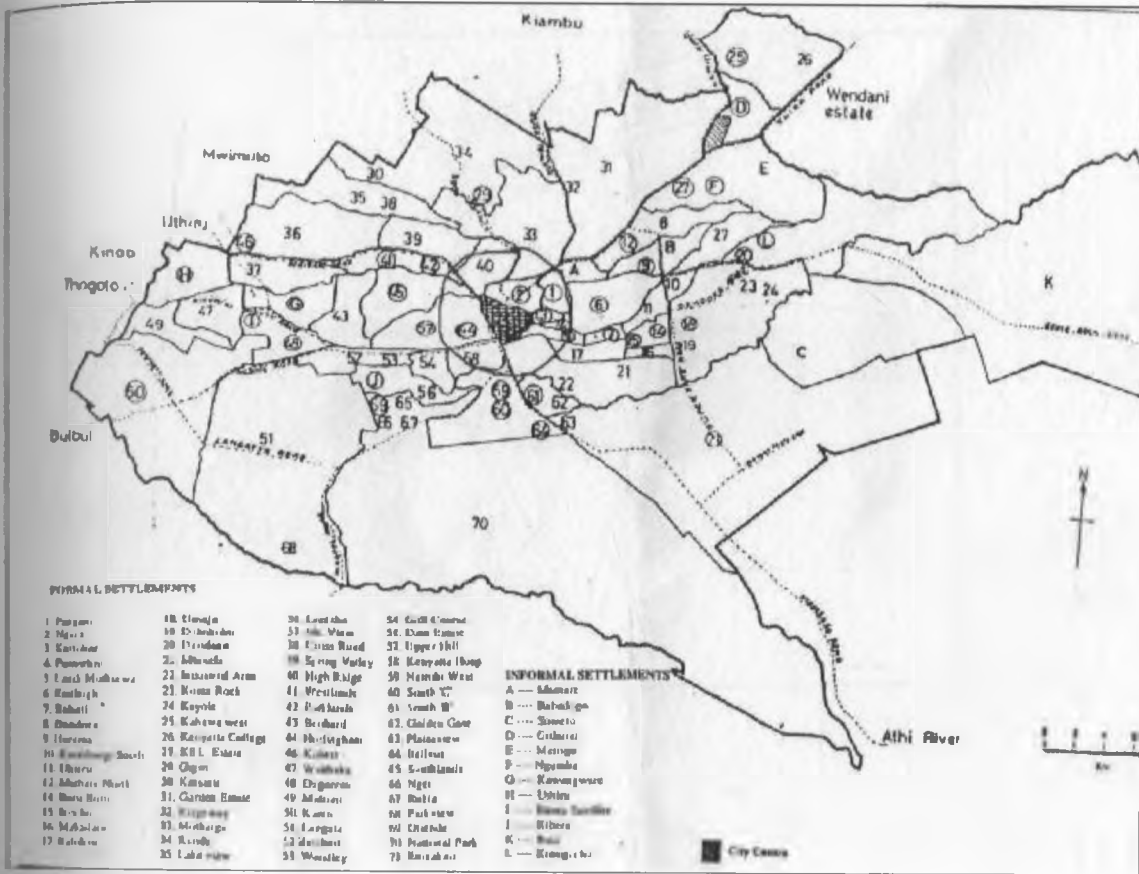
#### 4.6 Topography, soils and climatic condition of Nairobi and Ngara

The land in the Nairobi region falls from the edge of the Rift Valley in the west at an elevation of 2300 metres to 1500 metres to the east of the city. Basically the city is located on the East African Plateau. Nairobi is placed in an area which forms a small segment of the Eastern ramp of the Kenya Rift Valley and comprises the plateau sloping up its edge and its step-fainted flank (Thornton et al, 1948). They further point out that the topography of Nairobi is marked by two features; it is on the division of the Athi plains and the footline of the Aberdare mountains so that the industrial, commercial and African areas are on the flat areas but the Asian and European residential areas are all about 200 feet higher. The other topographical feature is the deep valley cut by the Nairobi, Mathari, Masongawai and Ngong streams. To the North and North East the high and evenly sloping land is dissected by these streams which have formed a series of steep sided parallel valleys and ridges. The slope of the land in Ngara is generally flat in nature.

The rock which underlies most of Nairobi is dark grey lava known as Nairobi Phonolite or black trap. It is too hard to cut for building stone but can be crashed to make road construction material (Walmsley, 1957). The Athi plains phonolites have weathered into a black cotton – like substance of two to three feet in depth with secondary Kunkar formation. Thornton et al (1948) advise that buildings require deep foundations down to the rock on this type of soil. Walmsley (1957) also advises that before erecting any large building it is necessary to dig away all the soil and subsoils usually to a depth of about five feet so that the foundations can rest on the surface of the underlying rock. The soil cover in Nairobi is mainly thick black cotton soil. This type of soil has expansion and shrinkage problems due to the presence of clay minerals. This kind of soil is imperfectly drained, very deep, dark grey to black and firm to very firm. The soil has many adverse physical properties for it is sticky, waterlogged and dries up hard in the dry weather making deep cracks below the surface (Thornton et al, 1948).

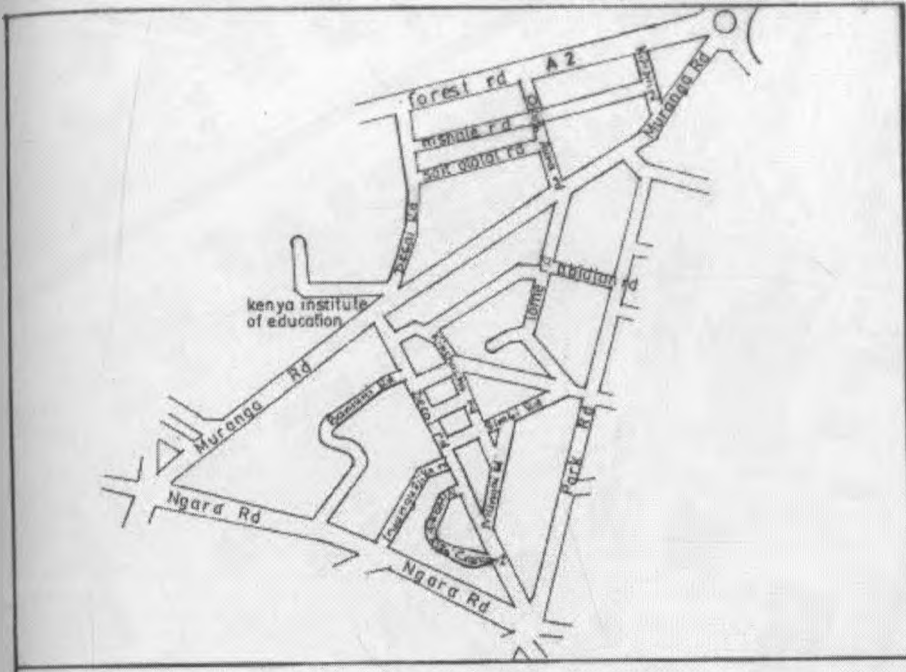
The climate is mainly influenced by the Equator and the Indian Ocean. The area is semi arid with annual rainfall ranging between 450-900mm. It is hot during the day and cold during the night most of the year.

Map 4.6: Map of Nairobi showing the location of Ngara



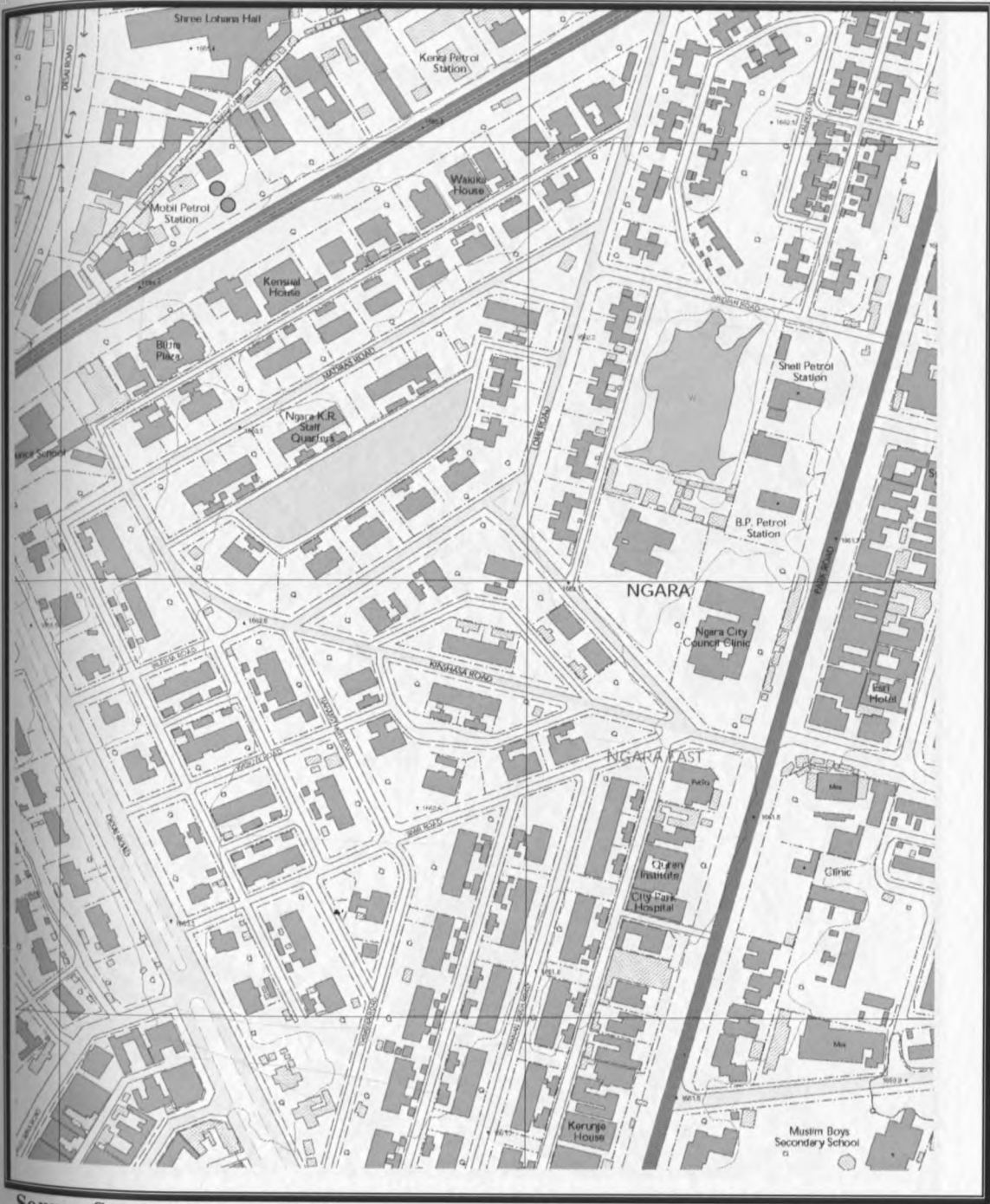
Source: Shihembetsa (1995,p.119)

Map 4.7 : Segment of Ngara bounded by Ngara, Murang'a and Park Roads.



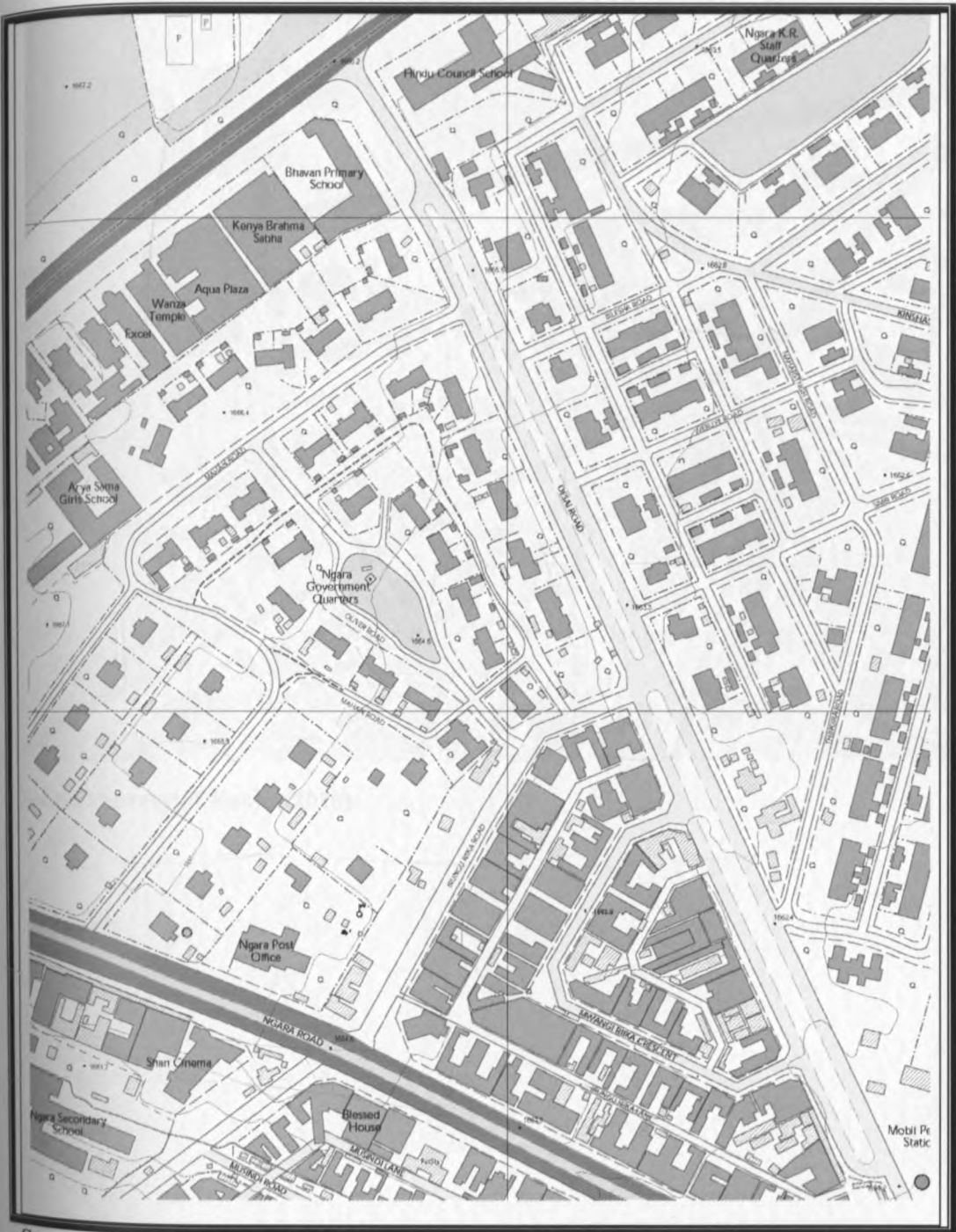
Source: Author (2010)

Map 4.8: Section A of the area of study



Source: Survey of Kenya (2010)

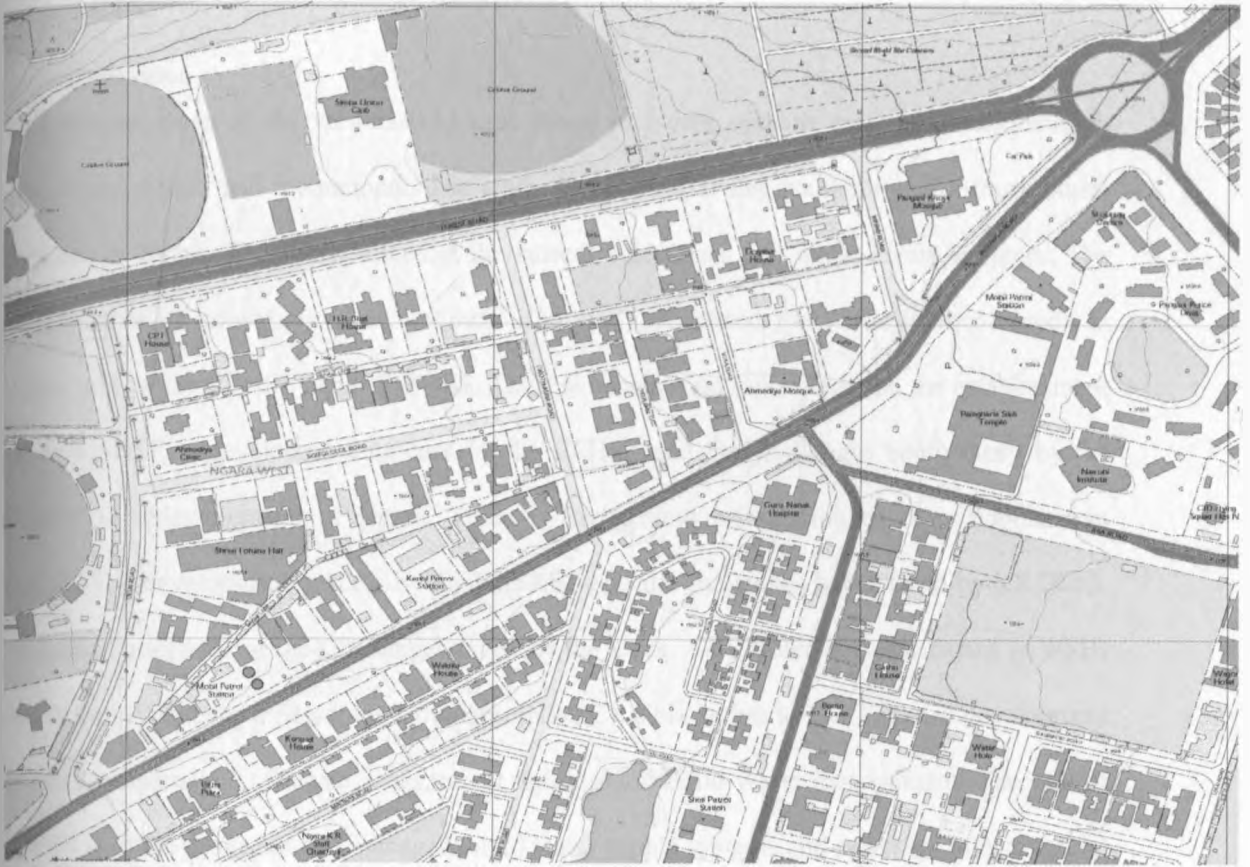
Map 4.9: Section B of the area of study



Source: Survey of Kenya (2010)



**Map 4.10: Section C of the area of study**



**Source: Survey of Kenya (2010)**

## **CHAPTER FIVE: THE CHALLENGES EXPERIENCED BY CSHSF AND KRSRBS PROJECTS.**

### **5.1 Introduction**

This chapter looks at the various land uses found in Ngara such as residential, commercial, special use, health and recreational. The study also looked at the availability of infrastructural facilities in Ngara. The study looked at the current Sale prices and rental levels in Ngara. The current costs of construction are outlined. The study discussed the redevelopment needs in Ngara, and by the CSHSF and KRSRBS. There is background information on the establishment of the CSHSF, redevelopment process by the CSHSF and the challenges being faced by the CSHSF in redevelopment of Ngara. There is background information on the establishment KRSRBS, redevelopment process by the KRSRBS and the challenges being faced by KRSRBS. There is a brief look at the Challenges faced by the CCN, Athi Water Services Board (AWSB) and Nairobi Water and Sewerage Company (NWSC). This is due to CCN role in development control, maintenance of estate roads, street lighting and Solid waste management. The role of AWSB is in the provision and management of water supply systems and sewerage infrastructural facilities. NWSC is charged with the role of providing water and sewerage services.

### **5.2 Background information on land uses in Ngara.**

#### **5.2.1 Introduction**

The area has been zoned for mixed development of compatible Land uses. In this case land owners are permitted to put their land parcels to all variety of land uses such as commercial, residential, light industrial, recreation, health, educational and special purpose. The caution is that whatever use is the land is put to; it should not interfere with adjacent land uses in the area. For instance any use that will pollute the environment in terms of air and sound will not be

permitted. This is best illustrated in plate 5.1 whereby a shell petroleum filling and service station is sandwiched by residential block of flats.

**Plate 5.1: Compatible Land Uses (Petroleum Service Station in between Commercial Residential Flats) along Forest Road**



**Source: Author's survey (2010)**

### **5.2.2 Residential**

These are mainly old bungalows belonging to KRSRBS in section A (Plates 5.25 and 5.26 ) The Ministry of Housing is redeveloping their parcel with High rise flats in section B.(plate 5.2 ). The CCN flats in the area are in a poor state of repair and maintenance. The area is characterized by old residential buildings on big plots and they are characterized by a poor state of repair maintenance (see plate 5.3 and 5.4). Such plots have a very great potential in terms redevelopment. The land owners of such potential redevelopment sites stand to maximize returns from their investments if they appropriately redevelop the plots with high rise blocks of

residential or commercial buildings. It is more ideal for owners of plots fronting Ngara, Murang'a and Park Roads to concentrate on putting up commercial buildings which can be put to uses such as retailing, hotels and offices. For owners of plots which do not front Ngara, Murang'a and Park Roads it will be prudent for them to redevelop their plots with high rise blocks of residential flats.

It is advisable for the land owners to plan very well so as to avoid the problem of having their redevelopment projects stall along the way as shown in plate 5.5.

**Plate 5.2: CSHSF 10 level High rise flat under construction.**



**Source: Author's survey (2010)**

**Plate 5.3: A single family house along Park Road**



**Source: Author's survey (2010)**

**Plate 5.4: Unoccupied Residential**

**Building a long Forest Road**



**Source: Author's survey (2010)**

**Plate 5.5: Stalled housing project on Desai**

**Road**



**Source: Author's survey (2010)**

### **5.2.3 Special uses**

The area is adequately lined with numerous Petroleum filling and service stations. Plate 5.6 shows one of the stations at the junction of Desai Road and Ngara Road. This kind of use is very popular for owners of plots fronting Ngara, Murang'a and Park Roads. This is due to importance of these roads which are access routes to and from the CBD. The amount of vehicular traffic from the Nairobi- Thika Road super high way which is under construction is enormous and therefore can support numerous petroleum filling and service stations in Ngara.

It is also worth pointing out that Ngara neighborhood is ideal for transportation use as this will go a long way in attempts to decongest the CBD. For instance the CCN can put up transportation termini in the area for all 14 passenger capacity public service vehicles which will be barred from accessing the CBD. Public service vehicles with a capacity of more than 14 passenger capacity will then pick passengers from Ngara to the CBD, Westlands, Upper hill and

community areas. Alternatively a pedestrian path should be provided from Ngara to the CBD for this will encourage people to walk from Ngara to the CBD and vice versa.

**Plate 5.6: Total Petroleum filling and service station situated at the junction of Desai Road and Ngara Road.**



Source: Author's survey (2010)

#### **5.2.4 Recreation facility**

KRSRBS has a play ground that is poorly maintained and was designed to cater for low density population in the area. Due to increase in the number of households in the area as a result of redevelopment it is necessary to incorporate recreation areas in all redevelopments in the area. This will be easily achievable if a portion of land belonging to KRSRBS is acquired by the CCN which will put it to recreation use. A small public park will be necessary for Ngara area. This will be used for relaxation purposes and will also serve as a green belt for the Ngara neighborhood.

**Plate 5.7: Ngara Railways Estate play Ground**



Source: Author's survey (2010)

### **5.2.5 Health facilities**

The area has one major Hospital (Guru Nanak Ramgarhia Sikh Hospital) and several private Health Clinics. The following major health facilities can easily be accessed from Ngara: Kenyatta National Hospital, Aga Khan Hospital, Getrudes Children Hospital and M.P. Shah Hospital

**Plate 5.8: Guru Nanak Ramgarhia Sikh Hospital**



Source: Author's survey (2010)

## 5.2.6 Commercial

Commercial enterprises are concentrated along Ngara, Park and Murang'a Roads. These include offices; Retail outlets (shops); petrol filling and Service stations; Student Hostels; garages; Bars; and Hotels (lodgings, restaurants and cafes). Plate 5.9 and 5.10 indicates the commercial enterprises in the area. There will be an increase in demand of commercial facilities in Ngara and this will be attributed to the increase in the number of households as a result of high density redevelopment of Ngara. The resident population of Ngara and those who access and pass through the area will be the major clients for the commercial enterprises.

There is a challenge of illegal structures which have been put up in the area. This is shown in plate 5.11. Most of the illegal structures are used by small scale traders. The mushrooming of these structures can partly be attributed to the poorly managed Ngara hawkers market.

**Plate 5.9: Glory Driving School that operates from Murang'a Road**



Source: Author's survey (2010)

**Plate 5.10: Commercial Enterprise along Murang'a Road**



Source: Author's survey (2010)



**Plate 5.11: Illegal temporary Structures along Park Road**



**Source: Author's survey (2010)**

### **5.2.7 Education facilities**

The following primary and secondary schools are found in the Ngara: Ngara Girls Secondary School, Arya Girls Secondary School, River Bank Primary School, Murang'a Road Primary School, City Primary School, Nairobi River Primary School and Arya Primary School.

The Colleges in Ngara neighborhood include Nairobi Technical Training Institute, Vision Institute of Professional Studies and Pioneer international College. It is worth noting that major educational facilities like the University of Nairobi and Kenya Polytechnic University College can be easily accessed. Apart from the above there are; numerous campuses for public universities; and private colleges in the CBD which can easily be accessed from Ngara.

**Plate 5.12: Tertiary Learning Institution at the junction of Murang'a and Desai Roads**



**Source: Author's survey (2010)**

### **5.2.8 Infrastructural services**

The area is connected to the main power grid, mains water supply and mains sewerage system. Solid wastes collection and transportation to the disposal sites is undertaken by private firms whereas disposal is handled by the CCN.

**Plate 5.13: The expansion of Sewerage System along Okoth Aura Road in Section A**



**Source: Author's survey (2010)**

### **5.2.9 Road network**

Most of the roads are in a good state with Murang'a Road and Forest Road undergoing reconstruction and expansion. Park road is in a very bad state and should be reconstructed in order to facilitate smooth flow of vehicular traffic.

**Plate 5.14: Murang'a Road currently being reconstructed and expanded**



Source: Author's survey (2010).

### 5.3 Sale prices and rental levels in Ngara

Given the proximity of Ngara to the CBD and the main industrial district of Nairobi the redeveloped housing units have a steady demand from the middle class income group. The rentals being realized and sale prices are shown in the tables below.

**Table 5.1: Some of the Properties in the area of study**

S/No	Name of owner/ property	Property details	Remarks
1	J.W. Kigwe	209/1003/4/2 Measuring 0.1004 Ha Kipkabus Road	A Block of 6No. Two Bedrooms flats letting at Kshs. 37,000 per Month Each. Bought the property in 2009 at a price of Kshs. 40 Million
2	Rosewa Agencies	209/5821/12 Forest Road	21 Two bedroom flats letting at Kshs. 35,000 per Month Each
3	Kipande plaza	209/2754/4 measuring 0.081 Ha	Commercial cum Residential Building with an approximate floor area of 16,500 square feet. It comprises 30 bedsitters letting at between Kshs. (5,000-7,000)/= per month each.
5	Kirunje House	209/2761/8 0.072 Ha in size on Park Road	It is a Commercial cum Residential property measuring 17,000 square feet. Comprises 10 shops, 4 one bed roomed flats letting at Kshs. 14,000/= per Month each, flats, 12 two bed roomed flats letting at Kshs. 18,000/= per Month each and 16 bedsitters letting at Kshs. 10,000/= per Month each.

Source: Author (2010)

**Table 5.2: Rental offers of houses in Ngara**

S/No	Property Description	Rent Per Month (Kshs)	Date
1	2 Bedroom flat	25,000	17/6/2010
2	2 Bedroom flat on Park Road	20,000	12/8/2010
3	2 Bedroom flat on Park Road	20,000	30/9/2010
4	2 Bedroom flat	30,000	25/11/2010
5	2 Bedroom flat on Park Road	20,500	25/11/2010
6	2 Bedroom flat on Chambers Road	32,000	25/11/2010

Source: The Standard Newspapers on different dates (2010)

From tables 5.1 and 5.2 the rent for a two bed roomed unit ranges from Kshs. 18,000/= per month to Kshs. 37,000/= per month. The average of the above cases will give a rental level of Kshs. 26,500/= per month. Two bedroom master en suite flats will let for a higher rent of about Kshs 30,000 per month. A three Bedroom will let at approximately Kshs. 40,000/= per month.

**Table 5.3: Recent land sales in Ngara**

Date of Transfer	Land Reference Number	Size (Ha)	Plinth area (Square feet)	Nature of Accommodation	Location	Sale Price (Kshs)
31 <sup>st</sup> Aug, 2009	209/2489/48	0.0410		3 Shops & 10 rooms	Desai Road	19M
January 2010	209/2249	0.1159		Old House	Ngara Road	10M
3 <sup>rd</sup> March 2010	209/1418/34	0.1239	3120	Old Building	Chambers Road	16M
19 <sup>th</sup> May 2010	209/2004	0.1239	1136	4 Rooms and Servants Quarter	Off Murang'a Road	16M

Source: Ministry of Lands (2010)

**Table 5.4: Sale offers of redevelopment land Parcels in Ngara**

S/NO	Plot Description	Offer Price (Kshs.)	Equivalent Price for an acre (Kshs.)	Date
1	0.25 acre on Kolobot Road	75m	300m	8/6/2010
2	0.25 acre	60m	240m	17/6/2010
3	0.3 acre Near Stima Plaza	55m	183m	13/7/2010
4	0.25 acre	60m	240m	13/7/2010
5	0.28acre Near Stima Plaza	45m	160m	10/8/2010
6	0.25 acre on Kolobot Road	55m	220m	30/9/2010
7	0.25 acre at the junction of Forest and Desai Roads	55m	220m	30/9/2010
8	0.25 acre on Park Road	25m	100m	5/10/2010
9	0.25 acre Residential/commercial Plot	45m	180m	25/11/2010
10	0.25 acre on Park Road	25m	100m	17/11/2010
<b>Average</b>			<b>195m</b>	

**Source: The Standard Newspapers on different dates (2010)**

From tables 5.3 and 5.4 above the value of one acre ranges from Kshs 35 million to Kshs. 300 Million. The variation is due to locational differences of the different land parcels. Redevelopment plots which are exclusively commercial in nature and on the first row from Ngara, Desai, Park, Murang'a and Forest Roads are relatively expensive when compared with exclusively residential plots which are situated away from these Roads.

#### **5.4 Costs of construction**

This is in terms of the price of construction materials and cost of labour for both skilled and unskilled. The following table shows the trends in the cost of construction for building works in the recent years and up to date.

**Table 5.5: General Building Works Cost per M<sup>2</sup> in Nairobi Region**

Building Type	Category	June -Aug 2007	Jan- March 2008	Jan -March 2009	Oct-Dec 2009	Jan-March 2010
Office Blocks	Low rise (4 Storey)	25,000	25,000	36,000	36,000	36,000
	High Rise with Lifts	31,000	31,000	45,000	45,000	45,000
Retail Outlets	Small Scale Shopping Centre	17,000	17,000	23,000	23,000	33,000
	Shopping mall	31,000	33,000	45,000	45,000	45,000
Residential	High class single units (Maisonettes)	28,000	32,000	46,000	46,000	40,000
	High class, high rise flats	31,000	35,000	50,000	50,000	45,000
	Low cost, low rise flats	20,000	20,000	31,000	31,000	31,000
	Low cost, high rise flats	22,000	22,000	35,000	35,000	35,000
	Site and Service Schemes	9,000	11,000	17,000	17,000	17,000

**Source: The Quantity Surveyor Journals (June 2007-March 2010)**

Note that the rates given in table 5.5 are for Building works and excluding site Works. As a general guide in most construction of buildings the cost of site works constitutes 25% of the total cost of construction.

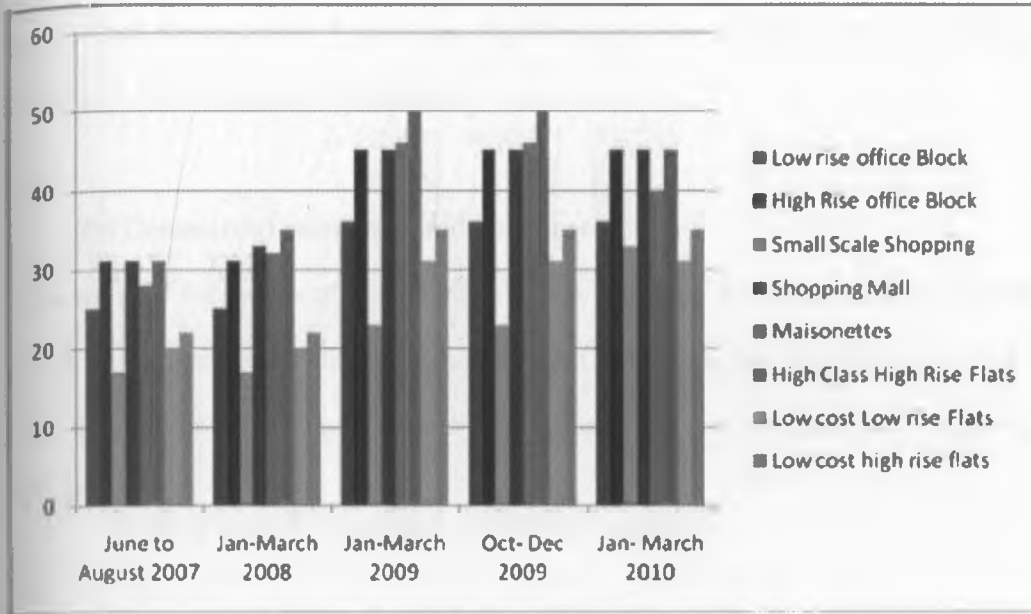
The costs that conform to the case projects are those of the low cost, low rise flats; low cost, high rise flats; and shopping mall. For the case of the CSHSF project the rates will apply to five level blocks, towers and shopping centre respectively.

The implication of these rates to the research is that to put up a three bed roomed flat measuring 85m<sup>2</sup> like that one of the CSHSF and based on the rate of low cost, low rise flats in March 2010 is expected to cost Kshs. 3,513,000/=. This compares well with the selling price of such a unit which was based on the cost of construction and fixed at Kshs. 4,000,000/= by the CSHSF. A two bed roomed flat measuring 63m<sup>2</sup> like that one of the CSHSF and based on the rate of low cost, low rise flats in March 2010 is expected to cost Kshs. 2,604,000/=. This compares well with the selling price of such a unit which was based on the cost of construction and fixed at Kshs. 3,200,000/= by the CSHSF.

A three bed roomed flat measuring 85m<sup>2</sup> like that one of the CSHSF and based on the rate of low cost, high rise flats in March 2010 is expected to cost Kshs. 3,966,700/=. This compares well with the selling price of such a unit which was based on the cost of construction and fixed at Kshs. 4,000,000/= by the CSHSF. A two bed roomed flat measuring 63m<sup>2</sup> like that one of the CSHSF and based on the rate of low cost, high rise flats in March 2010 is expected to cost Kshs. 2,940,000/=. This compares well with the selling price of such a unit which was based on the cost of construction and fixed at Kshs. 3,200,000/= by the CSHSF.



**Graph 5.1: The cost (KES '000) of buildings works per square metre in Nairobi region.**



Source: Author (2010)

### 5.5 Summary of urban redevelopment needs for Ngara

The study was able to establish that the area has been zoned for mixed development of compatible land uses. The area though is more ideal for residential purpose due to the proximity to many employment places which are found in the main CBD and the main industrial zone. The following is a summary of the various redevelopment needs in Ngara estate.

#### (a) Residential redevelopment

The area is characterized by old residential buildings on big plots and they are characterized by a poor state of repair maintenance. Such plots have a very great potential in terms redevelopment. For owners of plots which do not front Ngara, Murang'a and Park Roads it will be prudent for

them to redevelop their plots with high rise blocks of residential flats. The expected rent that ranges from Kshs. 20,000/= to Kshs. 40,000/= for two and three bedroom flats gives a satisfactory rate of return on investment.

#### **(b) Commercial enterprises redevelopment**

It is more ideal for owners of plots fronting Ngara, Murang'a and Park Roads to concentrate on putting up commercial buildings which can be put to uses such as retailing, hotels and offices. This will cater for the increased number of households as a result of high density redevelopment of Ngara.

#### **(c) Provision of health facilities**

The area has one major Hospital (Guru Nanak Ramgarhia Sikh Hospital) and several private Health Clinics. Though other major medical facilities in Nairobi are easily accessible from Ngara it will still be appropriate to put up another medical facility of the same or bigger magnitude like Guru Nanak Ramgarhia Sikh Hospital. This will cater for the increased number of households.

#### **(d) Expansion of road network , provision of pedestrian walks and footbridges**

The requirement of road expansion is already being effected in Ngara on Murang'a Road and Forest Road. There is need for Park road to be reconstructed in order to facilitate smooth flow of vehicular traffic. There is need to provide pedestrian walks from Ngara to Nairobi CBD along Murang'a and Park Roads in order to encourage walking by s Ngara residents and non residents who pass or come to Ngara. Footbridges will aid pedestrians in crossing the expanded roads. These pedestrian walks and footbridges should be well lit at night in order to enhance security.

**(e) Expansion of the water and sewerage system**

The area is connected to the mains water supply and mains sewerage system. In order to support the increased population in the area the water supply and sewerage systems should be expanded by the AWSB.

**(f) Environmental conservation**

There is need to check all forms of activities that will pollute Nairobi river. The planting of adequate trees in Ngara by redevelopers should be enforced by NEMA.

**(g) Provision of play grounds and public recreation park**

Due to increase in the number of households in the area as a result of redevelopment it is necessary to incorporate recreation areas in all redevelopments in the area. A small public park will be necessary for Ngara area. This will be used for relaxation purposes and will also serve as a green belt for the Ngara neighborhood.

**(h) Expansion of education facilities**

The area is characterized by schools like Ngara Girls Secondary School, Arya Girls Secondary School, River Bank Primary School, Murang'a Road Primary School, City Primary School, Nairobi River Primary School and Arya Primary School. To cater for the increased population in Ngara efforts should be made to increase the number of streams in these schools. To realize such high rise block of classes will be more ideal.

**(i) Provision of special purpose facilities**

The area is adequately lined with numerous Petroleum filling and service stations. The amount of vehicular traffic from the Nairobi- Thika Road super high way which is under reconstruction is enormous and therefore can support numerous petroleum filling and service stations in Ngara.

**5.6 Redevelopment expectation by the CSHSF and KRSRBS**

The CSHSF was established in order to facilitate civil servants to own homes. This can be achieved by constructing residential units and selling them to civil servants. Civil servants can also be facilitated to own homes through provision of housing loan facilities to purchase or construct residential housing units. The CSHSF found Ngara civil Servants estate to be ideal for redevelopment purpose. This is based on the big difference in the returns before and after redevelopment as shown below.

The cost of redeveloping Ngara Phase I is Kshs. 248,137,208/= and Kshs. 1,687,649,202/= for phase II. According to the contract sum the total cost for both phases is Kshs. 1,935,786,410/=. Allowable variation on this projects based on the contract sum is 15%. Therefore the final project cost could be in the range of Kshs. 2,200,000,000/=. Previously the Ministry of Housing was realizing Kshs. 480,000/= per month from the 80 Bungalows which were being let at Kshs. 6,000/= per month each. After redevelopment and occupation of the 656 housing units the expected monthly mortgage and rent recovery is Kshs. 17,780,000/= with Kshs. 2,800,000/= expected from Phase I and Kshs. 14,980,000/= expected from Phase II.

The mandate of KRSRBS is to maximize returns from any investment they make and in relation to the properties they own which are mainly in form land and housing. They are supposed to generate sufficient monthly incomes from any investments they make. The income so generated will be utilized in the payment of lump sum and monthly pensions to Kenya Railways Pensioners. It is on this basis that they have settled on the need to redevelop their land parcel in Ngara. The rental income realized now is a very small fraction compared with the expected level of returns after redevelopment.

Currently the KRSRBS is realizing Kshs. 3,915,000/= as rent from its 261 bungalows which have been let at Kshs. 15,000/= per month each. The Land parcel belonging to KRSRBS measures 43 acres whereas the CSHSF parcel measures approximately 15 acres. If the KRSRBS adopt the same density as the CSHSF they will be able to put up 1880 housing units (880 two bedroom and 1,000 three bedroom units). The two bedroom units let at Kshs. 30,000/= per month each will give a total rent of Kshs. 26,400,000/=. The three bedroom units let at Kshs. 40,000/= per month each will give a total rent of Kshs. 40,000,000/=. The total rent realized will be Kshs. 66, 400,000/=. However based on total project cost of the CSHSF the KRSRBS will require to the tune of Kshs. 6,300,000,000/= for full redevelopment.

## **5.7 The case of Civil Servants Housing Scheme Fund (CSHSF)**

### **5.7.1 Background on the establishment of the CSHSF**

The CSHSF is a Fund under the Ministry of Housing charged with the responsibility of facilitating civil Servants to own homes. In order to carry out redevelopment the CSHSF opted for Public procurement by procuring consultants and contractors. Prior to July 2001, the Government was providing subsidized housing to its employees through the provision of Government owned/leased housing or payment of house allowance. This resulted into a number of problems such as-:

- a) Inequity in subsidized housing provision benefiting only 12% while 88% were left to private housing.
- b) Unfair allocations due to scarcity of houses, and
- c) Disparity between officers receiving house allowance and those receiving owner – occupier house allowance.

On July 2001, the government commenced the implementation of a new housing policy for civil servants. One of the key objectives of the policy was to divest the government of the responsibility of direct housing of its employees except those involved in essential services, and instead encourage them to own their own houses. In implementation of the policy the government decided to offload part of its existing stock of non strategic houses. The implementation of the policy gave birth to the establishment of the civil servants housing scheme fund (CSHSF).

The CSHSF was established vide legal notice No. 98 of 15<sup>th</sup> September 2004 under the housing act Cap 117. This was after the cabinet approved the establishment of the Fund and the

promulgation of the rules and regulations to govern the operations of the Fund. The establishment of the CSHSF is in line with the National Housing Policy for Kenya 2004, where the government committed itself to facilitating both the public and private sector to assist their employees to acquire housing.

The objectives and purpose for which the fund was introduced include:-

- a) Provide housing loan facilities to civil servants for the purpose of either purchasing or constructing a residential house.
- b) Develop housing units for sale and for rental by civil servants and,
- c) Raise funds for the implementation of the above.

The main prerequisite before embarking on a redevelopment project is to have adequate funds to satisfactorily complete the project. The approximate total cost for Ngara phase I and II projects is in the tune of Kshs. 2.2 billion.

The funds from CSHSF came from the following sources;

- (a) Kshs. 300 million Seed money from the exchequer
- (b) 60% of the total rent collected from rental Government housing units that averages kshs 300 million per year.
- (c) Proceeds from the sale of non strategic Government pool houses
- (d) Mortgage recovery from tenant purchasers averaging Kshs. 200 million per year
- (e) Interest earned from Investment of CSHSF money in fixed deposit accounts.

### 5.7.2 Redevelopment process by the CSHSF

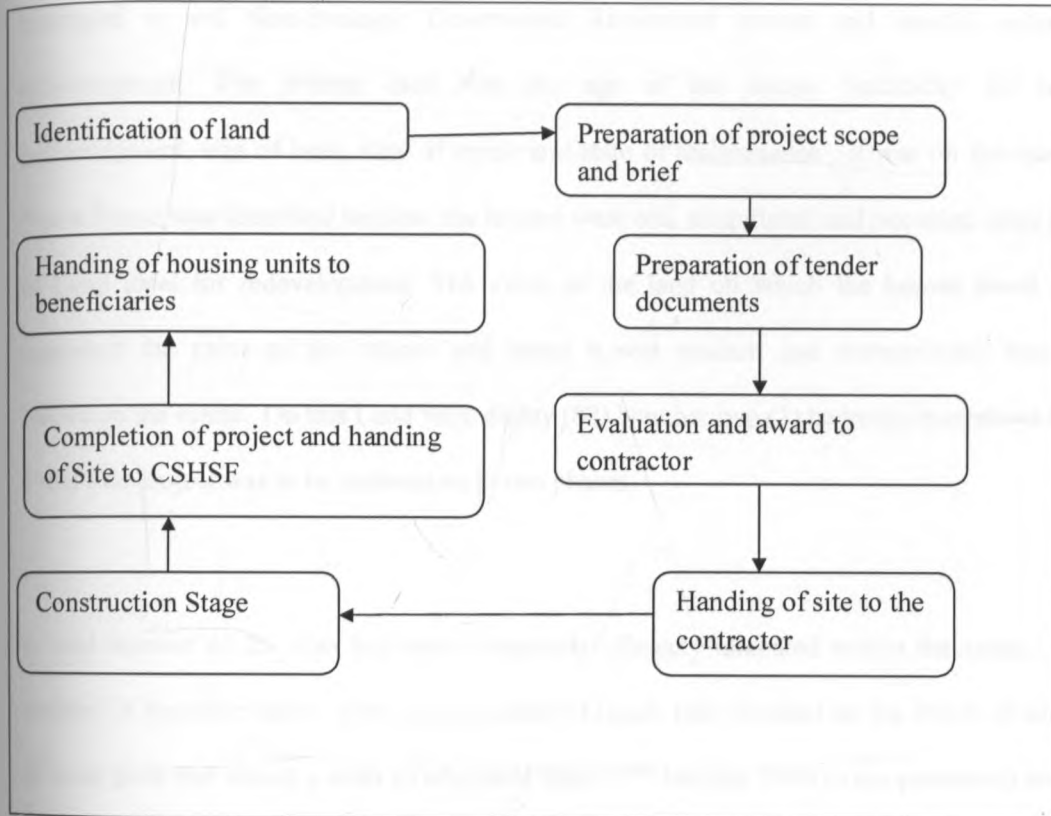
The following are general steps followed by the CSHSF in the process of redevelopment:

- a) Identification of Land for redevelopment
- b) Planning, Survey, Issuance of letter of allotment and processing of the title deed.
- c) The Commissioner of Lands will issue an allotment letter.
- d) This will be followed by a title deed, in the name of PS Ministry of Finance (PS Treasury).
- e) The CSHSF identifies project scope and prepares project brief for use by the consortium of consultants (Architects, Quantity Surveyors, Civil and Structural Engineers, Electrical Engineers, Mechanical Engineers, Land Surveyors and Environmental Management Specialists)
- f) The consultants are identified via the Request for Proposal (RFP). They enter into contract with the CSHSF for the provision of professional consultancy services. The consultants carry out feasibility analysis, design and supervision of the redevelopment project.
- g) The consortium of consultants prepares the tender document which will form a basis for inviting interested contractors.
- h) The Lead consultant/Architect forwards the project drawings to the CCN (or relevant Local Authority) and Environmental impact Assessment report to National Environmental Management Authority (NEMA) for approval.



- i) Evaluation and award of contract to Successful Contractor. The contractor carries out the construction work and in most cases he picks sub contractors to carry out various specialized works such as Mechanical, Electrical, civil and structural works.
- j) The redevelopment site is handed over to the Contractor.
- k) Once the contractor starts the work, the CSHSF undertakes all the monitoring activities. The contractor carries out the works based on the agreed work plan and the contract. A Clerk of Works is appointed to act as a representative of the CSHSF during the construction phase. They ensure maintenance of quality and precision as per the contract.
- l) Monthly Site meetings are held and minutes maintained by the consultants and a copy given to the CSHSF.
- m) Site inspections are conducted 2 weeks after the site meetings are held jointly by the CSHSF, Consultants and Contractor.
- n) If a change needs to be made, a site instruction is issued for the purpose of effecting the change.
- o) When the project is completed a final inspection is done by CSHSF, Consultants and Contractor
- p) On satisfactory completion a practical completion certificate is filled with a copy being forwarded to the CCN.
- q) A defect liability period of 6 months is maintained whereby if there are any defects found within the 6 months after completion of the construction, the contractor will repair the defects without any charge.
- r) The Project team is responsible for the final inspection after the expiry of the defect liability period that determines the quality, efficiency of the entire project.

- s) The completed project is finally handed over to the CSHSF for administration.
- t) Beneficiaries in form of tenant purchasers and renters are identified during construction period and before completion of the project.



**Chart 5.1 Redevelopment process by the CSHSF**

**Source: Author (2010)**

### 5.7.3 CSHSF Ngara housing redevelopment project

The CSHSF owns Land Reference No.209/11366 measuring 6.5 Hectares approximately and which fronts Desai Road on the North East and Ngara Road on the South West. The CSHSF was mandated to sell Non-Strategic Government Residential houses and identify estates for redevelopment. The criteria used was the age of the house, Suitability for housing redevelopment, size of land, state of repair and state of maintenance . It was on this basis that Ngara Estate was identified because the houses were old, dilapidated and occupied large parcels of Land ideal for redevelopment. The value of the land on which the houses stood greatly surpassed the value of the houses and hence it was prudent and economically feasible to redevelop the estate. On this Land were eighty (80) Number two (2) bedroom bungalows built in 1955. The project was to be undertaken in two phases.

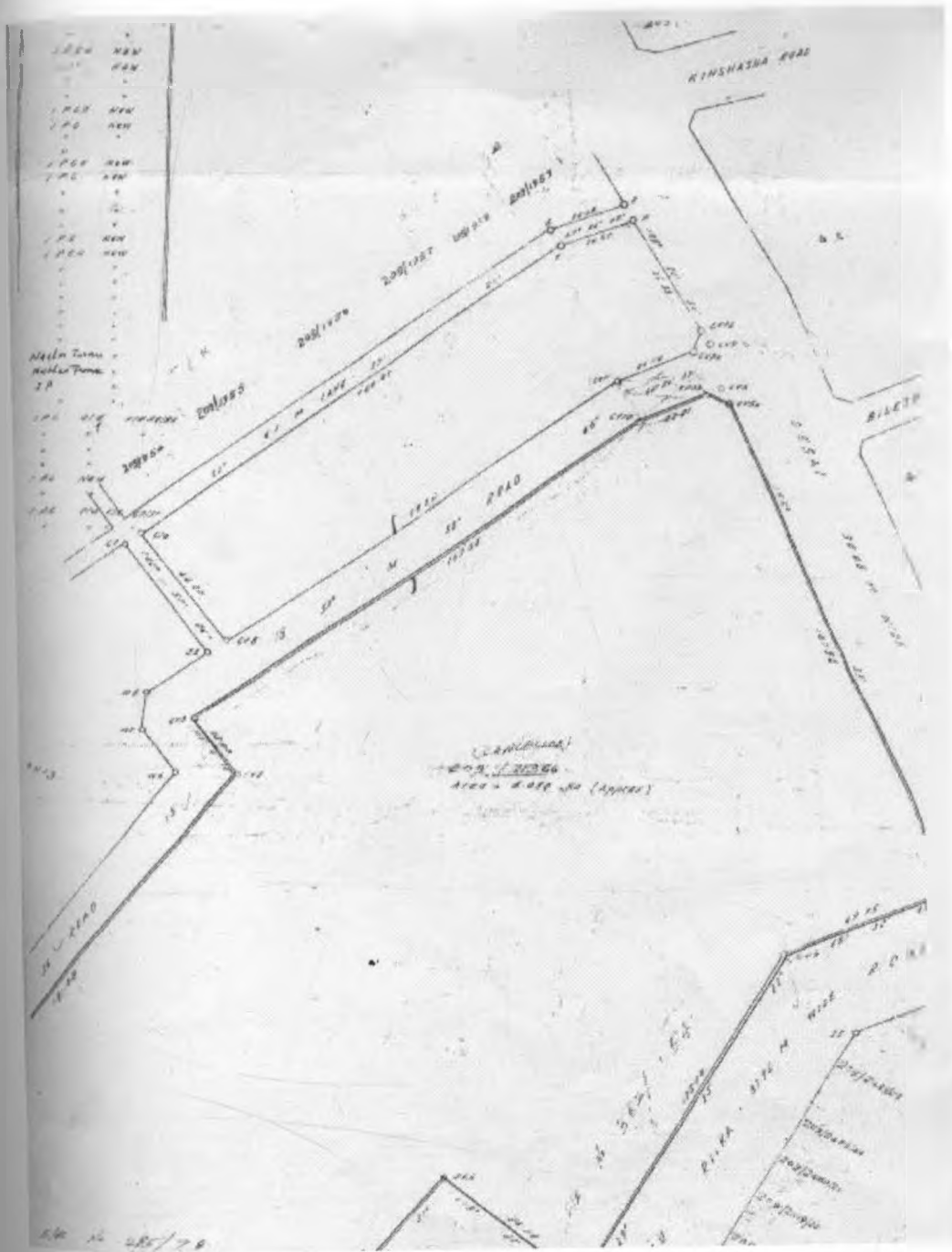
A total number of 25 plots had been irregularly/ illegally alienated within the estate. This is outlined in the table below. The Commissioner of Lands later revoked all the letters of allotment of these plots and issued a letter of allotment dated 17<sup>th</sup> January 2006 to the permanent secretary to the Treasury that reserved the entire plot for the redevelopment of Tenant Purchase Scheme houses for civil servants (Appendix 1). Although this action secured the plot there has been delay in the processing of the Main Title to the property and Sectional Titles of the Individual flats. Currently the only documentation on ownership is a letter of allotment

**Table 5.6: Plots which had been hived off from CSHSF Ngara plot**

<b>Land Reference Number</b>	<b>Area in Hectares</b>	<b>Land Reference Number</b>	<b>Area in Hectares</b>
209/13631	0.045	209/13745	0.0279
209/13632	0.04	209/13746	0.0307
209/13633	0.04	209/13747	0.0374
209/13634	0.04	209/13748	0.0444
209/13635	0.04	209/13749	0.027
209/13636	0.044	209/13750	0.027
209/13637	0.04	209/13751	0.027
209/13638	0.04	209/13752	0.027
209/13639	0.04	209/13753	0.027
209/13640	0.04	209/13754	0.027
209/13641	0.04	209/13755	0.027
209/13642	0.05	209/13756	0.0327
Access Road	0.14	Access Road	0.1128
209/13744	0.0277		
<b>Total</b>			<b>1.1416</b>

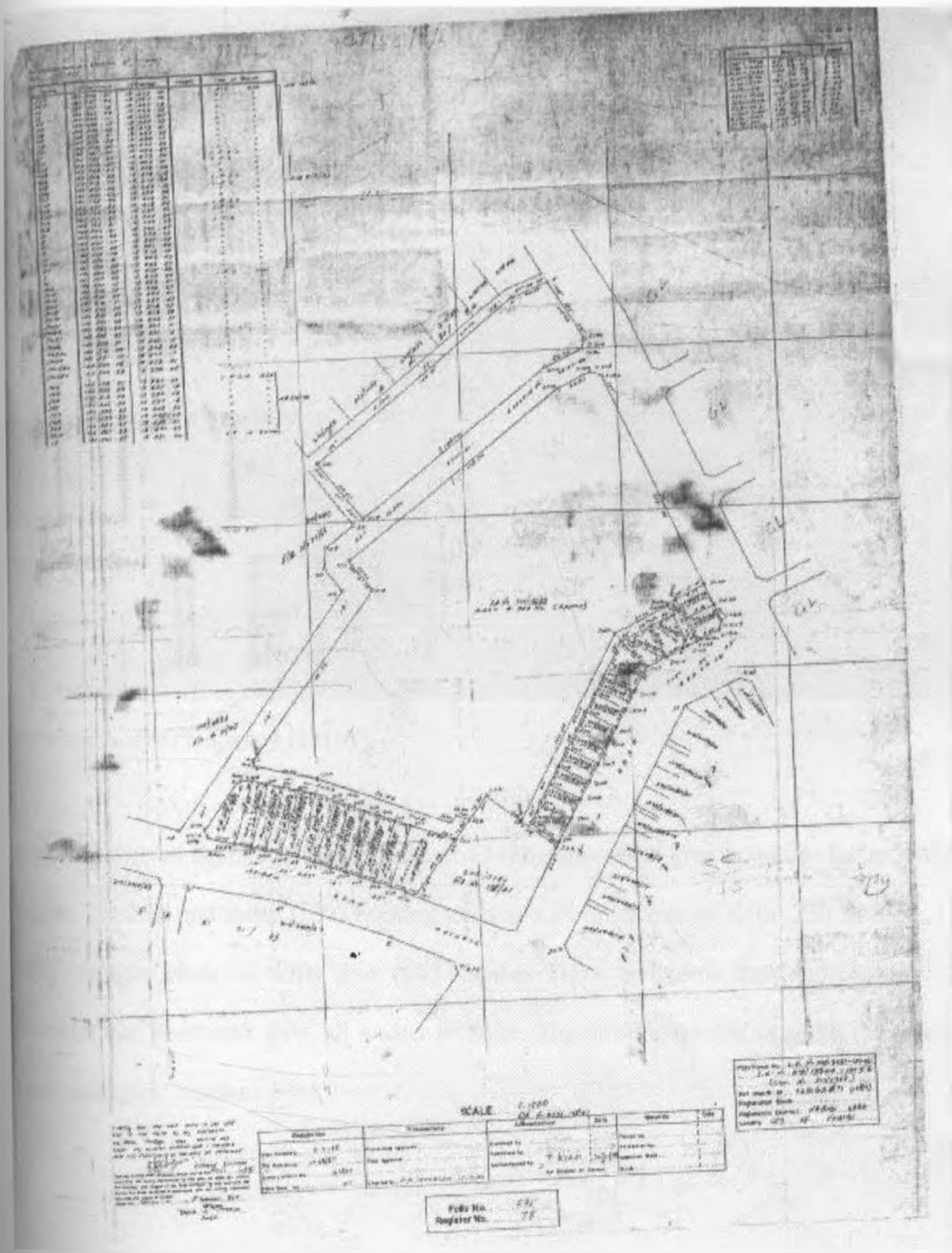
**Source: CSHSF (2010)**

Map 5.1 : Land parcel belonging to CSHSF before attempted alienation.



Source: CSHSF (2010)

Map 5.2: Land parcel belonging to CSHSF showing attempted alienation.



Source: Survey of Kenya (2010)

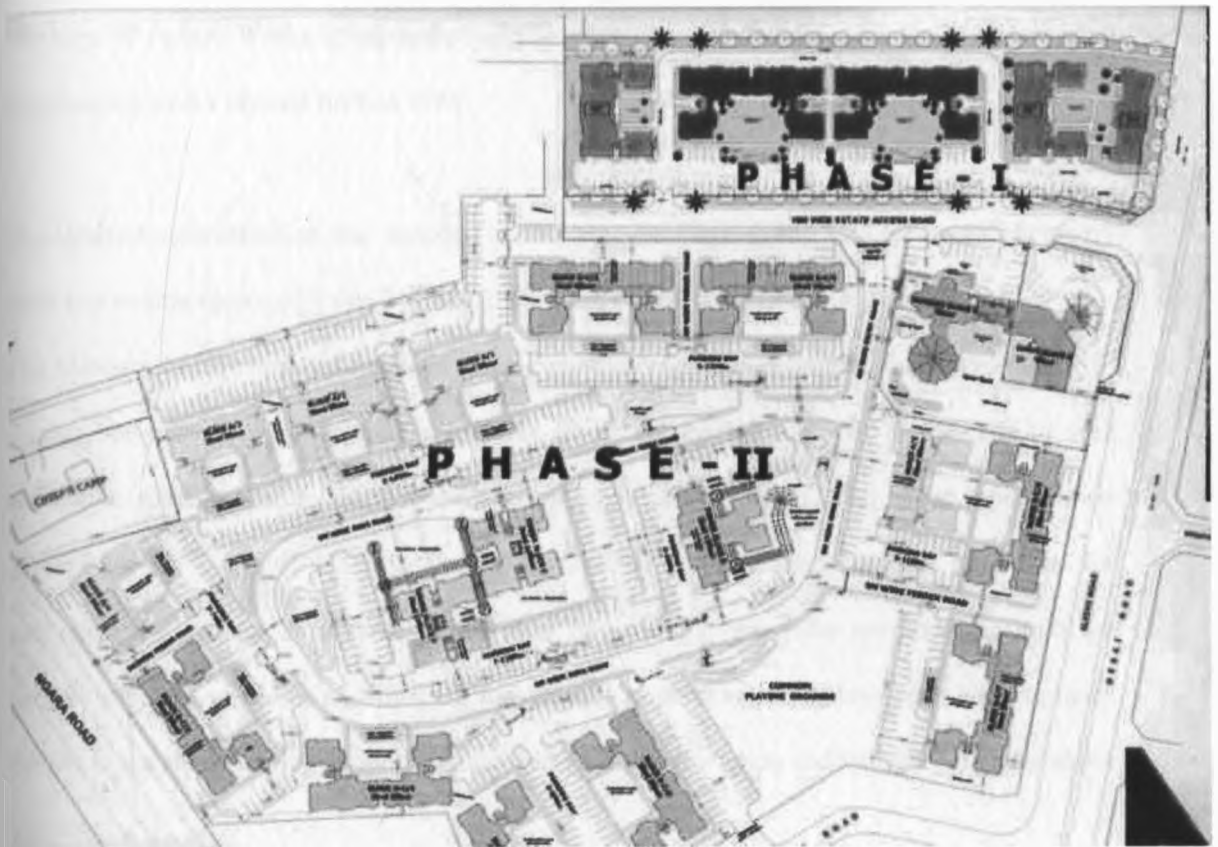
**Plate 5.15: Ngara phase I and demolished old bungalow.**



**Source: Author's survey (2010)**

Phase I involved the demolition of fourteen (14) bungalows to give room for the redevelopment of one hundred and thirty (130) housing units at a contract sum of Kshs. 250 Million. The 130 housing units comprise Fifty four (54) Number Three bedrooms flats and Seventy six (76) Number two bedrooms flats, all master en-suite. The development is in seven (7) number five level apartment blocks.

**Map 5.3 : Site layout of Ngara phase I and phase II**



Source : CSHSF (2010)

#### **5.7.4 Ngara phase I housing redevelopment project**

Request for Proposals (RFP) for consortium of construction consultants for design and supervision of housing redevelopment projects were carried out in mid 2005. After evaluation one consortium was awarded the Ngara Phase I and Phase II projects on 13<sup>th</sup> August 2005 and 20<sup>th</sup> December 2005 respectively.



The tender for consultants was given in line with the terms and conditions of the RFP and the Ministry of Public Works condition of engagement and scale of fees for Building and civil Engineering works revised Edition 1987.

The tender for construction was awarded to M/s Mugoya Engineering Limited on 13<sup>th</sup> February 2006 at a contract price of Kshs. 241,869,226/= with a contract period of 72 weeks.

The Ministry of Housing had intended to seek alternative accommodations for the fourteen (14) tenants but this were not available and this led to the calling upon of the tenants to seek alternative accommodation on their own in the open rental market. The above tenants were advised on 22<sup>nd</sup> August 2005 to vacate the site by 31<sup>st</sup> October 2005 to pave way for redevelopment project. Furthermore they were advised that when the new housing units are redeveloped they would be accorded the first priority to purchase the redeveloped housing units. Failure to vacate on expiry of notice would lead to forceful eviction and withdrawal of the above privilege.

The tenants went to court contesting their relocation from the redevelopment site through a case filed in the High Court of Kenya at Nairobi Miscellaneous Civil Application Number 1767 of 2005. This delayed the commencement of the project. The case was determined in favour of the Ministry of Housing on 17<sup>th</sup> November 2006. Immediately thereafter the Ministry evicted the tenants from the redevelopment site.

Mugoya construction and Engineering Company Limited was instructed to move to the site on 17<sup>th</sup> November 2006 but was unable to. They cited financial challenges which culminated into

receivership of the company on 2<sup>nd</sup> January by receiver managers from PricewaterhouseCoopers Kenya. The contract was terminated on 5<sup>th</sup> February 2007.

The tender was re advertised on 24<sup>th</sup> February 2007 and 26<sup>th</sup> February 2007 in the Standard Newspapers and Daily Nation Newspapers respectively. The contract was awarded to M/S Kewal Contractors Limited on 11<sup>th</sup> May 2007 at a contract sum of Kshs. 248,137,208/= for a period of 52 weeks. The site was handed over to the contractor on 25<sup>th</sup> May 2007.

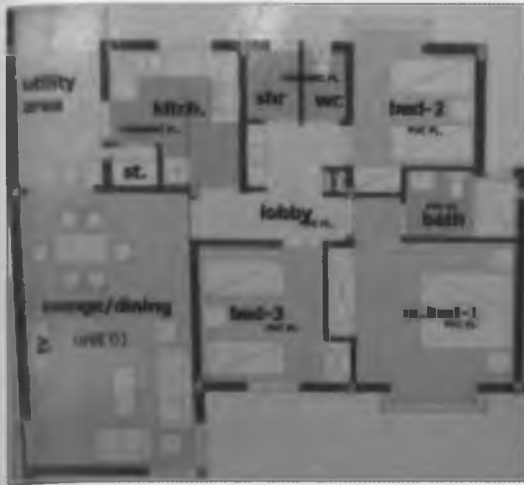
Construction commenced in June 2007 and the project was to be completed in June 2008. Due to non performance by the contractor the contract was terminated in September 2009 when the project was 88% complete. The Ministry is in the process of reevaluating the outstanding work with a view of getting another contractor to finish the project.

**Table 5.7: Ministry of Housing Ngara phase I Housing Project**

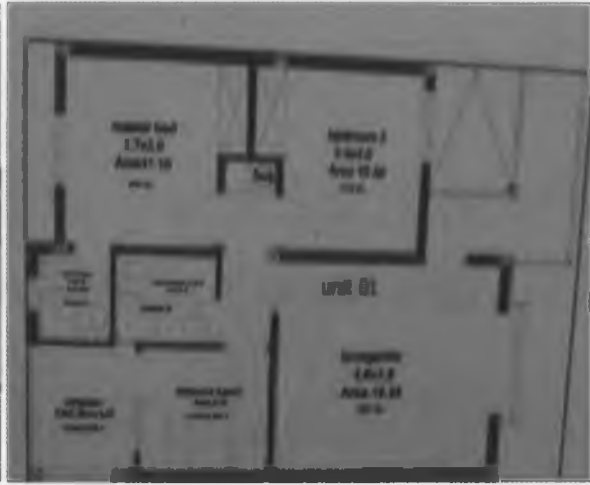
Type of Building	No. of Blocks	Total No. of Units	Size (M <sup>2</sup> )
2-Bedroomed Flats (5 levels)	3	76	63
3-Bedroomed Flats (5 levels)	4	54	85
<b>TOTAL</b>		<b>130</b>	

Source: CSHSF (2010)

**Plate 5.16: 3 Bedroom Floor plan**



**Plate 5.17: 2 Bedroom Floor plan**



Source: CSHSF (2010)

Source: CSHSF (2010)

The 76 two bedrooomed and 54 three bedrooomed flats in phase I were all sold in December 2007 at provisional sale prices of Kshs. 2 Million and Kshs. 2.9 Million each respectively. The expected monthly mortgage recovery from phase I for all the 130 housing units is Kshs. 2,800,000/

**Plate 5.18: Ngara phase I**



**Plate 5.19: Ngara phase I**



Source: Author's survey (2010)

Source: Author's survey (2010)

**Plate 5.20: Ngara phase I**



**Source: Author's survey (2010)**

**Plate 5.21: Ngara phase I**



**Source: Author's survey (2010)**

### **5.7.5 Ngara phase II housing redevelopment project**

Tender for the Ngara phase II Housing Redevelopment Project was advertised on 16<sup>th</sup> November 2007 in the Standard Newspapers and Daily Nation Newspapers. The main contract was awarded to M/s N.K. Brothers Limited on 15<sup>th</sup> February 2008 at a Contract Sum of Kshs. 1,619,909,101/= and for a duration of 140 weeks. The redevelopment site was handed over to main contractor on 17<sup>th</sup> March 2008. The Sub contract for installation of lifts was awarded to M/s E.A Elevator Company on 28<sup>th</sup> February 2008 at Contract Sum of Kshs. 44,410,753.70/=. The Sub contract for electrical installation works was awarded to Central Electricals International Limited on 28<sup>th</sup> February 2008 at Contract Sum of Kshs. 186,625,098.20/=. The Sub contract for plumbing, drainage and fire fighting installation works was awarded to Aqua Plumbing and Company Limited on 28<sup>th</sup> February 2008 at Contract Sum of Kshs. 160,800,000/=.

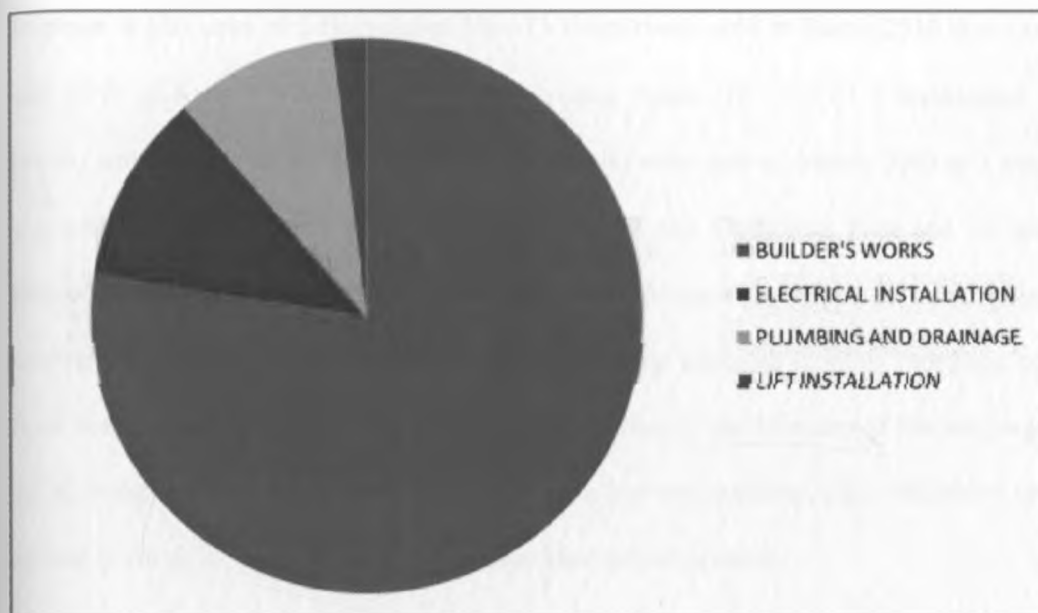
The sub contractors entered into sub contracts with the main contractor in accordance with their agreements and schedule of conditions of building sub contracts published by Kenya Association of Building and Civil Engineering Contractors (KABCEC) of 2002. According to the main

contractors work programme the actual construction commenced on 6<sup>th</sup> June 2008 and he is scheduled to complete on 6<sup>th</sup> December 2010.

**Table 5.8: Ngara phase II construction cost**

Item	Construction Cost (Kshs.)	Percentage of the Total Cost of
Main Contract ( Builders Works)	1,305,959,560	77.4%
Electrical installation works	186,625,098	11.1%
Plumbing, drainage and fire fighting installation works	160,800,000	9.5%
Installation of lifts	34,264,544	2%
<b>Total</b>	<b>1,687,649,202</b>	<b>100%</b>

**Source: CSHSF (2010)**



**Pie Chart 5.1: Ngara phase II construction cost.**

Source: CSHSF (2010)

**Table 5.9: Ministry of housing Ngara phase II housing project**

Type of Building	No. of Blocks	Units per Block	Total No. of Units
2-Bedrooms Flats (5 levels)	6	30	180
3-Bedrooms Flats (5 levels)	7	30	210
2-Bedrooms Flats (10 levels)	1	58	58
3-Bedrooms Flats (10 levels)	2	39	78
Shopping Centre	1	1	1
Nursery School	1	1	1
<b>TOTAL UNITS</b>			<b>528</b>

Source: CSHSF (2010)

In phase II 180 units of 2-Bedroomed Flats (5 levels) were sold in March 2010 at a provisional sale price of Kshs. 3.2 Million each. In this same phase 210 units of 3-Bedroomed Flats (5 levels) and 39 units of 3-Bedrooms Flats (10 levels) were sold in March 2010 at a provisional sale price of Kshs. 4 Million each. The towers of 58 two -Bedrooms Flats and 39 units of 3-Bedroomed Flats are for rental purpose to civil servants. The expected monthly mortgage recovery from phase II is Kshs. 14,980,000/=. The total expected monthly mortgage collection from both phases comes to Kshs. 17,780,000/=. Previously the Ministry of Housing was letting the 80 bungalows at Kshs. 6,000/= per month each and was realizing Kshs. 480,000/= per month in total which is 2.7% of the expected income after redevelopment.

**Plate 5.22: Ngara phase II 5 Level Blocks**

**Plate 5.23: Ngara phase II Tower Block**



**Source: Author's survey (2010)**

**Source: Author's survey (2010)**

**Plate 5.24: Ngara phase II with the raised water tank in the background.**



**Source: Author's survey (2010)**

#### **5.7.6 Site facilities**

There is provision for adequate landscaped children's playing grounds. Phase I has 188 parking bays whereas phase II has 734 parking bays for the residential units, 14 parking bays for the Nursery School and 23 parking bays for shopping Quarters. Every household will be entitled to one parking bay with the balance being shared between the households.



#### 5.7.7 The challenges faced by the CSHSF in redevelopment of Ngara.

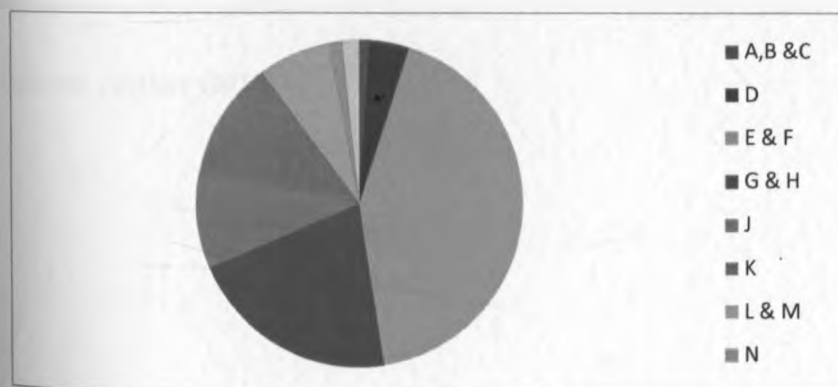
- a) **Cost of Redevelopment:** The cost of redeveloping the estate is very high and in the tune of Kshs 2.2 Billion. This amount was to be realized from the following sources: Kshs. 300 million seed money from the exchequer; 60% of the total rent collected from rental Government housing units that averages kshs 300 million per year; proceeds from the sale of non strategic Government pool houses; mortgage recovery from tenant purchasers averaging Kshs. 200 million per year; and interest earned from investment of CSHSF money in fixed deposit accounts It took some time before raising this amount. It is because of the cost implication that the project was divided into two phases. This is a result of the relatively low level of mortgage recoveries and rent remittances.
- b) **Relocation of Tenants on the Redevelopment Sites:** The tenants who were staying refused to relocate to pave way for the project and these led to delay in project implementation. The tenants' case filed in the High Court of Kenya at Nairobi Miscellaneous Civil Application Number 1767 of 2005 delayed the CSHSF Ngara phase I project from 31<sup>st</sup> October,2005 to 17<sup>th</sup> November 2006 when the case was determined in favour of the Ministry of Housing. They wanted to compel the Ministry of Housing to sell to them the 80 old bungalows.
- c) **Non affordability of redeveloped housing units by Majority of Civil Servants:** Due to the high cost of redevelopment the prices of redeveloped units are out of reach for majority of civil servants in job groups A to K who draw a taxable house allowance that ranges from Kshs. 3,000 /= to Kshs. 10,000/= per month. The expected monthly

mortgage repayments based on the provisional sale prices ranges from Kshs. 12,655/= for a two bedroom unit sold in phase I to kshs. 310,187/= for a three bedroom unit sold in phase II with the repayment periods ranging from 18 years maximum to one year minimum. The repayment period is pegged on the sixty (60) year age limit which is the official retirement age. Therefore the older the civil servant, the lower the repayment period and the higher the monthly repayment. This creates an affordability challenge to the older civil servants who are nearing retirement. This is clearly depicted in Table 5.11 and graph 5.2). Three former tenants out of the 80 former tenants are beneficiaries of the housing units which are being redeveloped. This represents 3.75% of the total number of former tenants. The concern of the tenants was that of being unable to afford the monthly mortgage repayments of the redeveloped housing units. In this relation their fear was that of permanent relocation from Ngara estate to other inferior estates as compared to Ngara estate.

**Table 5.10: Number of Civil Servants per job group and their respective monthly house allowances as at end of October, 2010**

Job Group	Number of Civil Servants	Number of Civil Servants as Per House allowance bands.	House Allowance in Kshs. Per Month
A	699	2,016	3,000
B	211		
C	1,106		
D	8,517	8,517	3,300
E	4,496	91,896	3,500
F	87,400		
G	25,307	45,516	5,000
H	20,209		
J	20,147	20,147	6,000
K	25,508	25,508	10,000
L	10,739	15,523	20,000
M	4,784		
N	2,723		
P	1,926	3,370	40,000
Q	998		
R	446		
S	168		
T	171	228	80,000
U	57		
V	3	3	
<b>TOTAL</b>	<b>215,615</b>	<b>215,615</b>	

Source: Government of Kenya, Office of the Prime Minister, Ministry of State for Public Service (2010)



**Pie Chart 5.2: The number of civil servants per job group as at October, 2010.**  
Source: Author (2010)

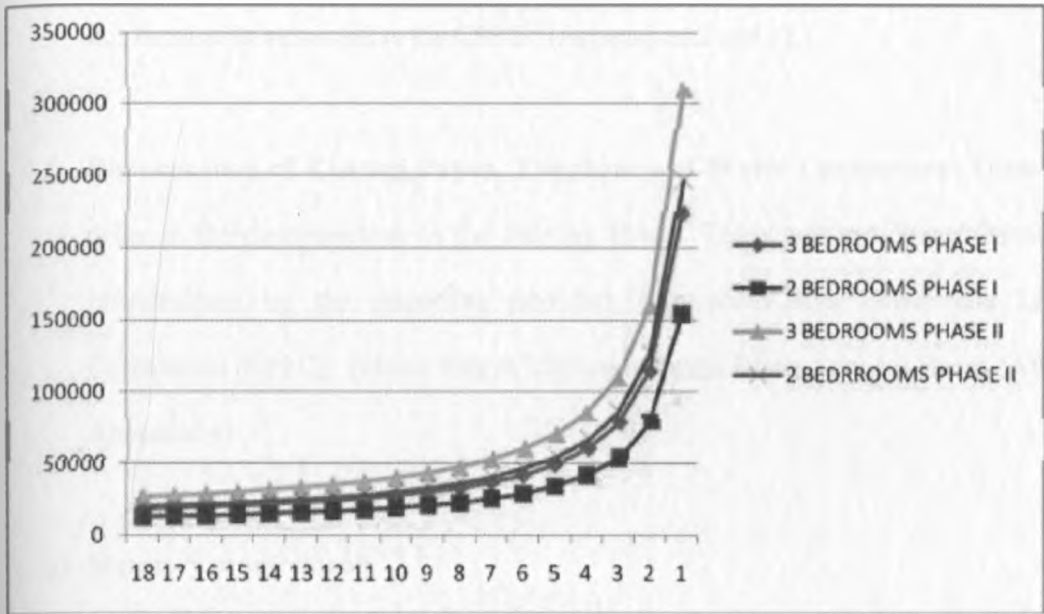
The government at the moment has facilitated 2,167 civil servants to own homes through the CSHSF. This is one (1) per cent of the total number of civil servants.

**Table 5.11: Monthly mortgage repayment in relation to repayment period in years**

REPAYMENT PERIOD IN YEARS	MONTHLY MORTGAGE REPAYMENT (Kshs.)			
	THREE BEDROOM PHASE I	TWO BEDROOM PHASE I	THREE BEDROOM PHASE II	TWO BEDROOM PHASE II
18	18,349	12,655	27,309	20,247
17	19,018	13,116	28,232	20,985
16	19,775	13,638	29,277	21,821
15	20,640	14,234	30,469	22,775
14	21,634	14,920	31,839	23,871
13	22,787	15,715	33,430	25,144
12	24,140	16,648	35,296	26,637
11	25,746	17,756	37,512	28,410
10	27,683	19,092	40,184	30,547
9	30,060	20,731	43,462	33,170
8	33,042	22,788	47,576	36,461
7	36,890	25,441	52,882	40,706
6	42,034	28,989	59,978	46,382
5	49,254	33,968	69,936	54,349
4	60,106	41,453	84,905	66,324
3	78,224	53,948	109,895	86,316
2	114,504	78,969	159,937	126,350
1	223,436	154,093	310,187	246,550

Source: Author (2010)

**Graph 5.2: The relationship between age of purchaser and monthly mortgage repayment.**



Source: Author (2010)

- d) **Failure in honouring Contractual obligations:** Non performing contractor of the first phase of the project has led to delay in the completion of the project. This can be attributed to poor management of the contract by the consultants, the contractor and Ministry of Housing. The contractor ought to have been compelled to pay for the damages as a result his non performance.
- e) **Trespass and Vandalism:** The existing tenants in phase II pulled down windows, doors and other items of value as they vacated the buildings. There was an influx of trespassers on the redevelopment site during and immediately after demolition that were looking for

items of value. This prompted for enhancement of security on the redevelopment site and this became an extra cost to the CSHSF (Appendices 2 and 3).

f) **Disconnection of Existing Power, Telephone and Water Connections:** There was a delay in the disconnection of the Existing Power, Telephone and Water Connections infrastructure by the respective providers who are Kenya Power and Lighting Corporation (KPLC), Telkom Kenya Limited and Athi Water Services Board (AWSB).( Appendix 4)

g) **Statutory requirements**

CCN: There was a delay in securing approval for the redevelopment plans of Ngara Housing Projects from the CCN and this was mainly because of the magnitude of the project and comments from CCN. The CSHSF sought approval as from 28<sup>th</sup> November, 2006 (Appendix 5) The comments were raised by development control, forward planning and roads sections in CCN (Appendix 6,7 and 8) Comments from CCN were as follows;

- (i) Due to the population increase in the neighborhood they wanted the CSHSF to consider the provision of more social infrastructure such as a primary school. They suggested the putting up of one stream at the neighboring primary school.
- (ii) They proposed the incorporation of functional detailed and comprehensive traffic management plan that prioritizes non-motorized transport while permitting limited vehicular access and circulation with concentration of on-site parking in a few designated places.

(iii) They required a traffic management report showing how the generated traffic will affect existing traffic and any proposed interventions.

**Environmental Management Authority (NEMA):** There was a delay in getting approval to cut trees on the site for phase II given that NEMA required approved building plans before giving their approval. At the time of seeking approval from NEMA the building plans had not been approved (Appendix 9)

h) **Water shortage in Ngara area:** The contractor incurred extra cost in terms of money and time in sourcing for water to be utilized for construction purpose. This prompted the sinking of a borehole for the project (Appendix 10)

## **5.8 The case of Kenya Railways Staff Retirement Benefit Scheme (KRSRBS)**

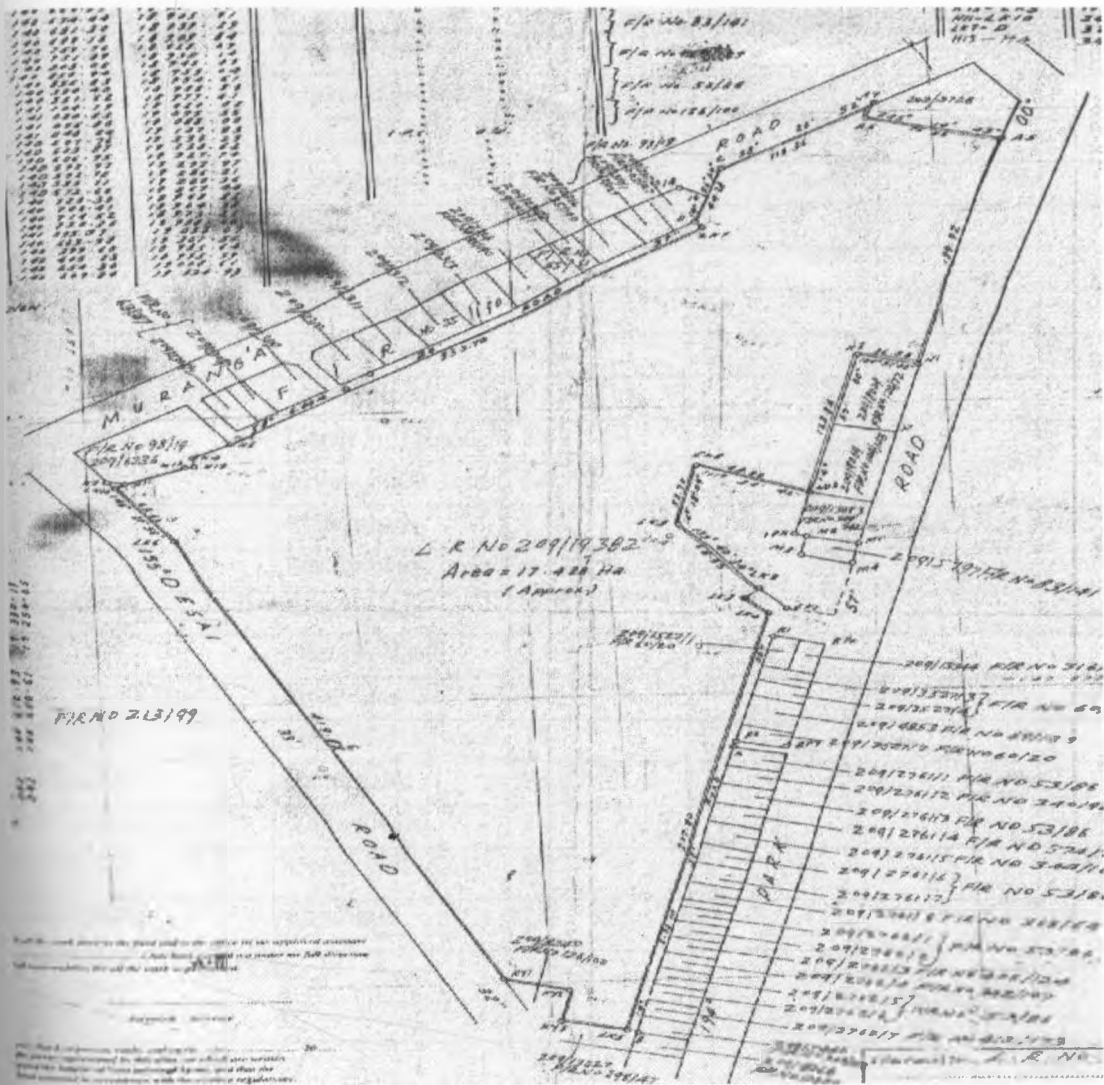
### **5.8.1 Background information**

KRSRBS is a pension scheme for former employees of Kenya Railways Corporation. In order to carry out redevelopment KRSRBS has opted for Public- Private Partnership approach. On November 1, 2006, Kenya Railways Corporation's Freight and Passenger services were concessioned to a South Africa Company-Rift Valley Railways (RVR) to run the Freight services for a total of 25 years and passenger services for 5 years on a lease basis. A residual KRC remained to manage the non-conceded assets which included land, houses, vacant plots, warehouses, inland water ways and Ports and the Railways Training Institute.

During the concessioning process, Kenya Railways Staff Retirement Benefits Scheme (KRSRBS) was established and registered by the Retirement Benefits Authority (RBA). Properties worth Kshs. 12.4 billion was transferred to the Scheme by the Kenya Government

from Kenya Railways Corporation (KRC) under a Legal notice No. 169 dated September 7, 2006. The following properties were henceforth transferred and vested in the Board of Trustees of KRSRBS.

**Map 5.4: Registry Index Map showing Land Belonging to KRSRBS**



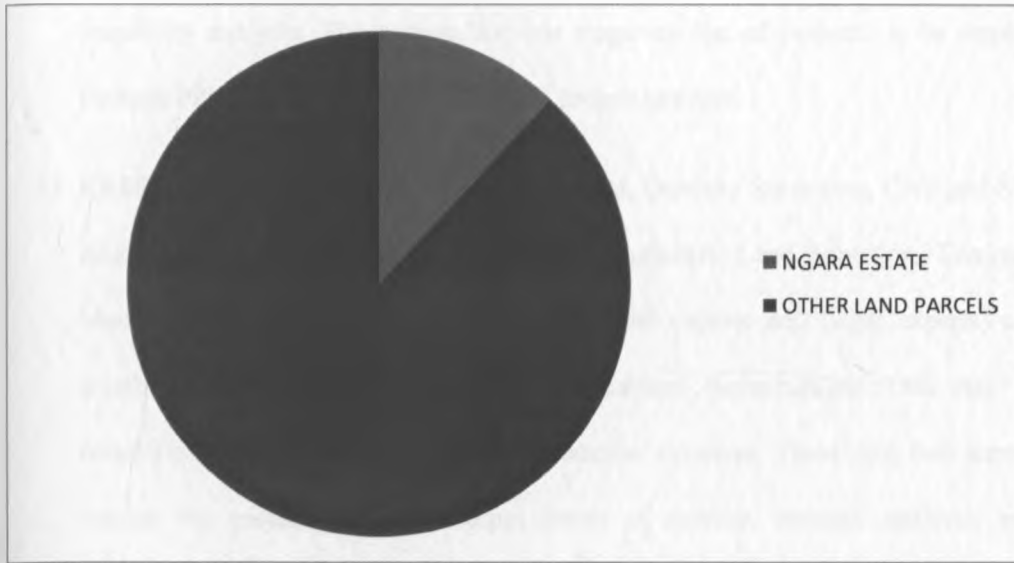
Source: Survey of Kenya (2010)



**Table 5.12: Properties of KRSRBS.**

<b>Land Reference Number</b>	<b>Location ( Road or Estate)</b>	<b>Size in acres</b>	<b>Remarks</b>
209/6829	Makongeni Estate	141	
209/6502 (part)	Muthurwa Estate	56	35 acres offered for sale on 10 <sup>th</sup> August 2010 to developers interested in commercial redevelopment.
209/19382	Ngara Estate	43	
209/8760	Lower Hill Road	3.9	
209/378/5	Hurlingham	0.48	
1/422	Ngong Road	0.71	
1/420	Ngong Road	0.71	
1/423	Kindaruma Road	0.71	
1/437	Kindaruma Road	0.52	
1/450	Ngong Road	0.52	
1/451	Ngong Road	0.52	
209/6525 (Part)	Upper Hill Road	8.69	
209/12401	Goods Shed Area	5.0	
209/6505	Matumbato	6.51	Offered for sale on 6 <sup>th</sup> Aug 2010.
209/6506	Matumbato	6.72	
209/6507	Matumbato	3.24	
209/11891	Nairobi West	3.8	
209/11954/2 (part)	Head Quarter	5.0	
209/11953	Nairobi Railways	18	
209/12088	Landmawe	20.09	
209/1064/1,2,3,4 & 5	Valley Road	2.0	
209/12178	Upper Hill (part)	8.77	
XXVI/237	Chambilo	2.5	
<b>TOTAL</b>		<b>335.39</b>	

Source: Government of Kenya (2006)



**Pie Chart 5.3: Size of 209/19382 Ngara in relation to the Total land Holdings of KRSRBS.**

**Source: Author (2010)**

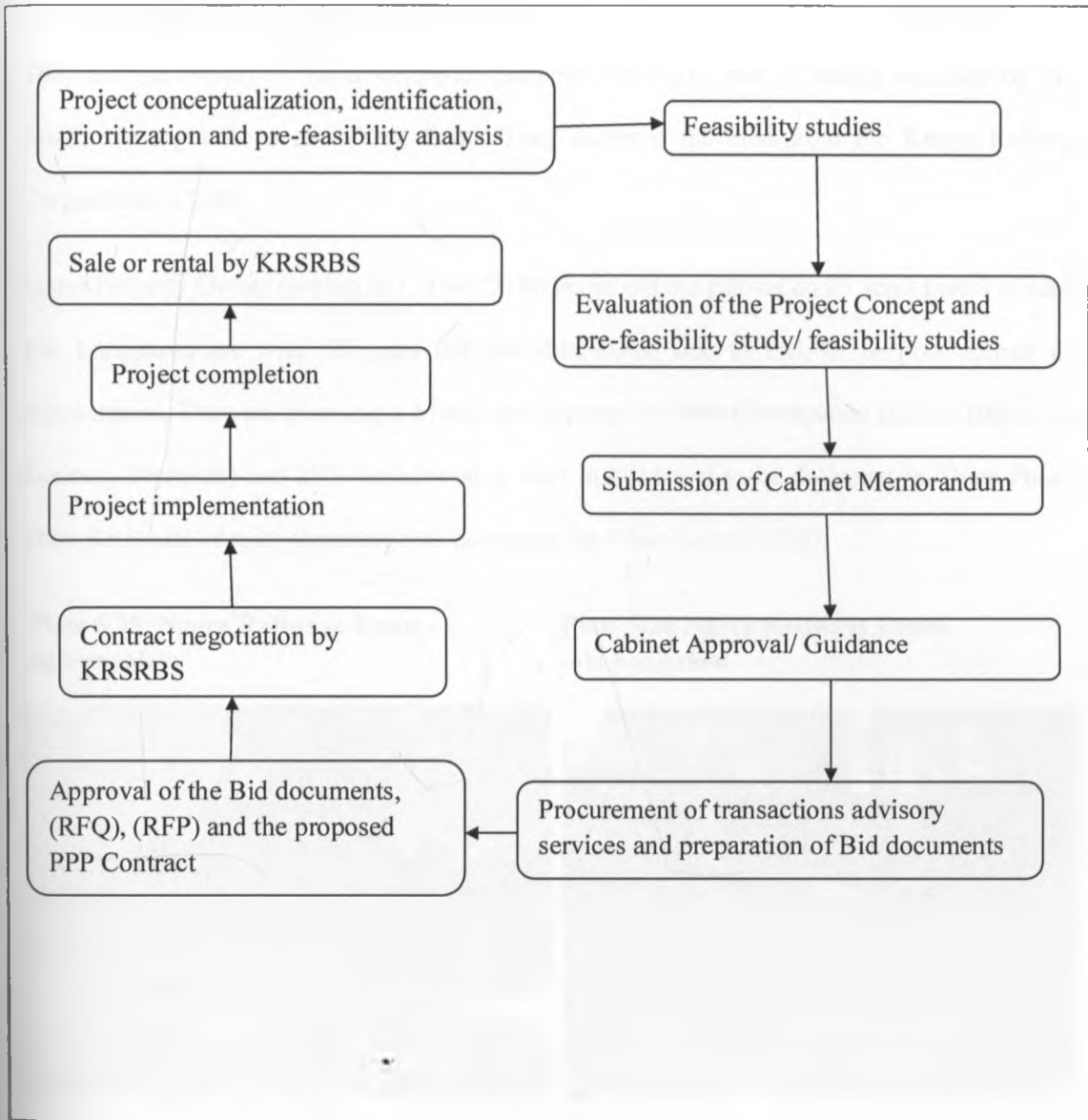
All the properties are located in Nairobi City except XXVI/237 which is located in Mombasa. The properties were to generate income for the payment of monthly pension amounting to Kshs. 50 Million to the Kenya Railways Pensioners who would now be paid by the pension Scheme and not KRC.

### **5.8.2 Redevelopment process by the KRSRBS**

The following are the steps to be followed by KRSRBS in the redevelopment and they are in line with Legal Notice Number 38 dated 10<sup>th</sup> March 2009 that deals with the Public Procurement and Disposal ( Public Private Partnerships) Regulations.

- a) KRSRBS carries out Project conceptualization, identification, prioritization and pre-feasibility analysis. The outputs for this stage are list of projects to be implemented through PPP frame work and preliminary project concept.
- b) KRSRBS with aid from consultants (Architects, Quantity Surveyors, Civil and Structural Engineers, Electrical Engineers, Mechanical Engineers, Land Surveyors, Environmental Management Specialists, Risk experts, Financial experts and Legal experts) carry out feasibility study. KRSRBS prepares draft cabinet memorandum. This step includes feasibility analysis and proposed risk allocation structure. These first two steps should outline the projects required output levels of service, demand analysis, technical, financial, economic, environmental, legal and institutional feasibility analyses. The outputs for this stage are clearly defined project concept, environmental impact analyses, social impact analyses and draft cabinet memorandum.
- c) Evaluation of the project concept and pre-feasibility study/ feasibility study is undertaken by the PPP secretariat based at the Ministry of Finance. The output for this stage is approval of the project concept including the risk sharing arrangement and guidance on any other work required to be done.
- d) Submission of joint cabinet Memorandum by the Minister for Transport and the Minister for Finance. The output for this stage is signed Cabinet Memorandum and Cabinet approval/ guidance.
- e) Procurement of transactions advisory services and preparation of Bid documents in line with Cabinet approval/ guidance by KRSRBS. The outputs for this stage are transaction services contracted and Draft Bid documents finalized.

- f) Approval by the PPP secretariat of the Bid documents including the Request for Qualifications (RFQ), the Request for Proposals (RFP) and the proposed PPP contract. The outputs for this stage are PPP secretariat approval for the draft Bid documents, shortlisted Bidders, Final Bid documents and winning Bidder.
- g) Contract negotiation by the KRSRBS with the assistance of the PPP unit. The output for this stage is Negotiated Contract with the winning Bidder.
- h) Implementation of the project.
- i) Completion of the project
- j) Sharing of the proceeds based on the negotiated contract
- k) Sale or rental by KRSRBS



**Chart 5.2: Redevelopment process by the KRSRBS**

Source: Author (2010)

### 5.8.3 KRSRBS property description

They are the owners of Land Reference Number 209/19382 that is mainly bounded by Park Road, Murang'a Road and Desai Road. They acquired the land from the Kenya Railways Corporation in 2006.

Major Property Owner owning 261, Two (2) bedroom old bungalows on 43 acres parcel of Land. The bungalows are over 50 years old and dilapidated due to lack of or poor Repair and Maintenance. They are planning a Mixed development of 75% Commercial (Office Blocks and Business Premises) and 25% Residential to start in 2011 and to be delivered in Three Phases. Their Rationale of redevelopment is to decongest the Main Nairobi CBD.

**Plate 5.25: Ngara Railways Estate old bungalow**



**Source: Author's survey (2010)**

**Plate 5.26 Ngara Railways Estate old bungalow**



**Source: Author's survey (2010)**

#### 5.8.4 Challenges KRSRBS is facing

The challenges faced by KRSRBS are:

- a) **Difficulties in processing for the title:** This was a problem for the KRSRBS and they only managed to secure the title this year. It took them over four years to secure the title. No concrete plans for redevelopment could be initiated in the absence of the title documents.
- b) **Lack of funds for redevelopment:** The cost of redeveloping the estate at the density and cost of the CSHSF in the same neighborhood will come to approximately Kshs.6.3 Billion. This will entail the redevelopment of approximately 1,880 two bed roomed and three bed roomed flats measuring  $65M^2$  and  $85M^2$  respectively. Taking the price of Land at Kshs. 70 Million the value of their 43 acres @ Kshs. 70 Million will come to Kshs. 3.01 Billion. If they get a private partner to meet the full cost of redevelopment if the sharing of returns is based on each partner's contribution KRSRBS will end up with 564 housing units being their 30% contribution to the redevelopment project. If the projected monthly income is similar to the CSHSF they will realize Kshs. 15,300,000/= . KRSRBS is currently letting the 261 bungalows at Kshs. 15,000/= per month each and hence realizing Kshs. 3,915,000/= per month in total which is 25.6% of the expected income after redevelopment.
- c) **Housing development bonds:** Capital Market Authority (CMA) regulations require both private and public institutions seeking to raise funds through the capital markets to get guarantors to protect investors against risk of default. For public institutions they require approvals from both Treasury and the CMA. Guarantee and approval from Treasury is

usually informed by a strong balance sheet that indicates the public institution's financial strength. It is necessary for any public institution to engage consultants in investment, banking and legal aspects to advice on the feasibility of raising funds through such avenue.

- d) **Limitation in investment options of retirement benefit schemes in Kenya:** The broad guidelines below are aimed at ensuring that a schemes investment portfolio is adequately diversified and that a scheme has a well defined investment policy (RBA, 1997).



**Table 5.13: Investment guidelines for retirement benefit schemes in Kenya**

	Categories of Assets	Maximum percentage of aggregate market value of total assets of scheme or pooled fund
1.	Cash and Demand Deposits in institutions licensed under the Banking Act of the Republic of Kenya	5%
2.	Fixed Deposits, Time Deposits and Certificates of Deposits in institutions licensed under the Banking Act of the Republic of Kenya	30%
3.	Commercial Paper, Corporate Bonds, Mortgage Bonds and loan stocks approved by the Capital Markets Authority and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	30% Amended LN 101 of 13.06.02
4.	Kenya Government Securities and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	70%
5.	Preference shares and ordinary shares of companies quoted in a stock exchange in Kenya, Uganda or Tanzania and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	70%
6.	Unquoted shares of companies incorporated in Kenya and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	5%
7.	Offshore investments in bank deposits, government securities, quoted equities and rated Corporate Bonds and offshore collective investment schemes reflecting these assets	15%
8.	Immovable property in Kenya and units in property Unit Trust Schemes incorporated in Kenya and collective investment schemes incorporated in Kenya and approved by the Capital Markets Authority reflecting this category	30%
9.	Guaranteed Funds	100%
10	Any other assets	5%

Source: Retirement Benefits Authority (1997)

This is not very realistic and appropriate for the KRSRBS who already have the bulky of their assets in real estate. Under the following guidelines they are also supposed to have a maximum of 30% of their assets in Immovable property in Kenya and units in property Unit Trust Schemes incorporated in Kenya and collective investment schemes incorporated in Kenya.

- e) **PPPs challenges:** The KRSRBS want to redevelop their parcel by engaging the private sector whereby they will avail the land and the private partner will avail the finance for construction. Later on they will share the returns from the redevelopment. At the moment the guidelines on PPPs are not clear and relevant law on public-private partnerships that will foster the engagement of the private sector in the redevelopment of the estate is lacking. It is only now that the Ministry of Finance is in the process of coming up with a Public-Private Partnership Act that will spell out how the public sector will partner with the private sector in various projects. This will enable relevant laws to be put in place which will safeguard the interests of both parties. Under the proposed legal state the current PPP steering committee which spearheads PPPs implementation will be replaced.
- f) **Relocation of current tenants:** The current tenants are occupying the housing units on the basis of renewable one year tenancies and paying a below market rent of Kshs. 15,000/= per month. The tenants will be given 90 days notice to move in order to pave way for redevelopment failure to which they will be forcefully evicted from the redevelopment site. The rent after redevelopment will approximately be Kshs. 30,000/= per month which is double what they are currently paying. This may completely push out a big percentage of the current tenants from the area.

### 5.8.5 Lessons that KRSRBS can learn from CSHSF.

The CSHSF project is at an advanced stage as compared to KRSRBS project which is at the initial stages. KRSRBS can learn from the experience of CSHSF in the following areas.

- a) **Phasing of the project:** In case funds are limited it will be necessary to carry out the project in small portions and in phases.
- b) **Splitting of the project into portions:** This is whereby KRSRBS will get sufficient funds to cover the entire project costs for the whole area. The project can be split into portions and allocated to different contractors who will be required to carry out redevelopment within a period of one year.
- c) **Relocation of tenants:** It will be more prudent for KRSRBS to put up a decanting site for the tenants. This is more appropriate if they phase the project into smaller manageable units.
- d) **Contract management:** Provisions in the contract for redevelopment should be strictly adhered to. The party that fails to meet their contractual obligations should be asked to pay according to the Provisions in the contract.
- e) **Statutory Requirements:** Permissions from CCN and NEMA should be sought early enough in order to avoid any unnecessary delays.
- f) **Trespass and vandalism:** During demolition of the old housing units the redevelopment site should be adequately secured to curb any incidences of trespass and vandalism.

g) **Disconnection of power, sewer, telephone and water systems:** This should be done by the respective providers early enough and before the redevelopment sites are handed over to the contactors.

### **5.9 Challenges CCN, AWSB and NWSC are facing**

This is mainly due to lack of capacity in the execution of development control requirements.

This is as per the remarks from the officers in CCN. Redevelopers have a tendency of building more than what has been approved by the CCN.

The available zonal plan of the area is dated 2<sup>nd</sup> October, 1978 and given the lapse in time the plan may not be very appropriate for now given the changed circumstances and expectations.

The estate roads in Ngara are in a poor state of maintenance due to lack of or in adequate funds.

Even though solid waste management of households, institutions and commercial wastes has been left to private contractors the CCN has not been effective in overseeing their operations.

Ngara is poorly lit at night as a consequence of few street lights some of which do not function.

The CCN has been unable to demolish illegal structures which are mainly concentrated along Park Road.

The cost of expanding some of the infrastructural facilities and services such as sewerage and water systems need to be undertaken by AWSB. This is necessary in order to accommodate high density development. Apart from expansion, funds are also required for repair and maintenance purpose of the systems. The NWSC is faced with the enormous task of providing water and sewerage services to the ever increasing number of residents.

## **CHAPTER SIX: SUMMARY OF STUDY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Summary of study findings**

- a) The need for redevelopment in Ngara by the CSHSF and KRSRBS is to increase the number of housing units in order to accommodate more households than before redevelopment. The CSHSF aim is to facilitate many civil servants to own homes in Ngara whereas the aim of KRSRBS is to increase the income realized from Ngara for the payment of KRC pensioners.
- b) Ngara is served very well with infrastructural and social amenities. However as the area is redeveloped there will be need to expand the infrastructural and social amenities. Transport wise the area is very well served and is accessed and served by major roads like Murang'a Road, Forest Road, Park Road and Desai Road.
- c) The value of land for redevelopment is very high due to the proximity of Ngara to the main central Business District. The average price of land in Ngara is Kshs. 70 Million per acre. This is reflected in the current rental levels which range from Kshs.18, 000/= to Kshs.37,000/= per month for a two bed roomed flat which are out of reach to a majority of people in the middle class.
- d) The cost of construction keeps on increasing making it very expensive to construct (Graph 5.1). This is the case with the CSHSF which is spending Kshs. 2.2 Billion to redevelop their 15 acres parcel of Land. KRSRBS will require Kshs. 6.3 Billion to redevelop their 43 acres parcel of Land. Public institutions have limited options of raising funds for redevelopment.

- e) The pace of redevelopment is unsatisfactory and this clearly shown in the stalled Ngara phase I project of CSHSF which was supposed to be completed in June 2008.
- f) There is a challenge of moving residents of redevelopment sites some of who may have stayed there for a very long time. The residents are usually adversely affected economically, socially and psychologically as they will be required to pay high rents or mortgage repayments for redeveloped housing units. Those who will not afford the redeveloped housing units will be forced to relocate permanently.
- g) The percentage of original tenants who are in a position to buy or let the redeveloped housing units is very low. This is the case of the CSHSF whereby only 3.75% of the total numbers of former tenants are beneficiaries of the housing units which are being redeveloped. It is highly likely that majority of the current tenants of KRSRBS may not afford to access redeveloped housing units which will be let at a minimum of Kshs. 30,000/= per month which is double what they are paying now.
- h) There is no proper framework for the engagement of public institutions with the private sector in the redevelopment process. The process is very lengthy and requiring deliberations and approvals at different levels. This as per the Legal Notice Number 38 of 10<sup>th</sup> March 2009 under the Public Procurement and Disposal Act (No.3 of 2005), Laws of Kenya, that deals with the Public Procurement and Disposal (Public Private Partnerships) Regulations. Public institutions like KRSRBS will take unnecessary long time in accomplishing their objective of redevelopment.

- i) There is a problem of irregular acquisition of land parcels belonging to public institutions. Some of the land parcels are not surveyed and registered making it easy for irregular acquisition. Public institutions face hurdles in the process of acquiring titles for their land parcels because of irregular alienation of their land parcels.
- j) Enforcement of contracts with public institutions is not carried out in an efficient and diligent manner. This loophole encourages contractors and consultants to renege on the contractual obligations.
- k) During the demolition of the old houses sufficient measures are not put in place to keep away trespassers and vandals.
- l) Disconnection of existing power, telephone, water and sewer lines by the respective service providers leads to delays in commencement of redevelopment projects.
- m) There is delay in securing of the mandatory statutory requirements before commencement of redevelopment projects. These are plan approvals from the CCN and NEMA.

## **6.2 Conclusions**

The study has established that there is need for redevelopment of Ngara estate with a mix of compatible land uses such as residential, commercial, educational, health, special purpose, recreation and transportation. This was made possible by CCN in 1978 when they re zoned Ngara to allow for mixed high density development. All the above uses are feasible given that upon residential densification there will be an increase in the number of households and population. This increased population will be supported by the other land uses and expanded infrastructural facilities.

The study has established that various challenges have and continue to hamper the efforts of housing developers such as the CSHSF and KRSRBS in realizing their objectives of comprehensively redeveloping their respective land parcels in Ngara. The main objective of the CSHSF is to redevelop housing units for sale to serving civil servants. The CSHSF's process of comprehensive redevelopment has been hampered by a multitude of challenges such as the cost of redevelopment being high and could be Kshs. 2.2 Billion. Furthermore their redevelopment initiative has been adversely delayed by the court case and non performing contractor of Phase I project.

The main objective of KRSRBS carrying out comprehensive redevelopment is to maximize returns from their investments in order to comfortably pay pensioners of Kenya Railways Corporations their pension dues. CSHSF and KRSRBS through their redevelopment in Ngara they will be assured of enhanced income from the sale proceeds and from monthly rents to meet their financial obligations. I was unable to get the relevant supporting documents for the challenges mentioned by the officers from KRSRBS. KRSRBS did not avail sufficient



documents given that their redevelopment initiative of Ngara is in the preliminary stages. Though they are planning a mixed development of 75% commercial and 25% residential they did not avail any supporting documents. Furthermore given the sensitivity of financial information the study did not have the benefit of their levels of income and expenditure.

### **6.3 Recommendations**

The Ministry of Housing as major land owner should play a role in showing the benefit to be harnessed from redevelopment in order to encourage other land owners to redevelop their land parcels. As a Ministry in charge of Housing matters in the country should consider extending housing incentives to developers in order to reduce the cost of redevelopment. To ensure that delays in completion of construction projects is concretely addressed by having in place water tight construction contracts that do not allow contractors and consultants not to perform. The risks and incentives in the construction redevelopment projects should appropriately apportioned amongst all the players in the redevelopment project.

KRSRBS can engage other key players from both the private and public sectors in redeveloping the land they own. They should look into possibility of engaging with financial institutions that will provide both short-term finance for redevelopment and long-term finance for potential buyers of redeveloped housing units. KRSRBS should source for financing from within the country and outside by being facilitated to issue a bond for Housing construction and this can be facilitated by the Ministry of Finance which will guarantee the issuance of the housing Bond.

They can partner with public institutions such as the Police and administration police who may have finance for development but lack land in strategic locations like Ngara. KRSRBS can lead other land owners in addressing their concerns through establishment of strong and vibrant neighborhood associations that will address cross cutting issues in the entire Ngara neighborhood.

The Ministry of Finance should come up with investor friendly guidelines of public procurement. To have clear provisions on the engagement of the private sector under different arrangements such as Built Operate Transfer (BOT) and Built Operate Own (BOO). This should take into consideration that for the Government the interest is Public welfare whereas for the Private sector their interest is to maximize returns on investment. To avail funds for compulsory acquisition of Land from Land owners who are not in a position to meet the full costs of redevelopment.

Effective public administration is also important preferably through a dedicated central PPP unit located within Government that can oversee the whole PPP process and has cross cutting authority over all Ministries. The Government must determine clear operational guidelines with respect to acceptable forms of PPPs and their prioritization, procedural clarity on the basic steps in establishing PPP projects, basic approaches to risk allocation, value for money and principles around the provision of guarantees and financial and budget evaluation criteria.

CCN should come up with a framework for redevelopment in the city that will guide all land owners with potential redevelopment sites. The CCN needs to review the 1978 zonal plan in order to accommodate recent developments and new emerging trends such as the preference of having stalls in commercial areas that maximizes the utilization of available space.

Using the current technology it is important to phase the projects into easily manageable units in order to speed up the completion of the redevelopment projects. This should borrow from Nairobi-Thika Super Highway road reconstruction and expansion which is being undertaken by three contractors. For instance Ngara phase II of CSHSF should have been given to three contractors each to handle approximately 180 housing units and to run concurrently for one year. Public institutions should explore the use of industrial panels that are made of insulating materials such as concrete or cement sandwiched between two wood skins that firmly hold the structure till it is ready and ready for use. These panels have the advantage of substantially reducing the construction costs and period. However the industrial panels will only be acceptable if the building code is reviewed to classify structures built from materials other than brick and mortar as permanent.

The government can sort out relocation needs by providing alternative housing units to the affected persons, transport for relocation and relocation loans for starting life afresh in different neighborhoods. This will make the relocation process easier and less painful. In a situation where the developer has sufficient funds it is advisable to put up decanting sites for relocation

purpose. Occupants of redevelopment sites should be accorded priority in accessing the redeveloped housing unit either on rental or purchase terms.

Redevelopment sites should be well secured before demolition works are carried out in order to prevent trespassing and vandalism. The redevelopment sites should be well guarded during relocation in order to avoid vandalism by relocating tenants. Likewise trespassers should be kept away by having sufficient number of security guards on a 24 hour basis till demolition is completed. This is important because materials from old housing units can be utilized in the construction of new housing units.

The affordability status of residents of sites earmarked for redevelopment can be improved by informing early enough and encouraging and facilitating them to form cooperatives. This will boost their savings that will be utilized in the purchase of redeveloped housing units. The monthly repayment is based on the amount of loan and the repayment period. The monthly repayment can be reduced by way of purchasers increasing their deposits beyond 10% of the sale price. Affordability status of potential beneficiaries can also be improved by adjusting the maximum repayment period from 18 years to 25 years.

Disconnection of power, telephone, water and sewer lines by the respective service providers should preferably be carried out before handing over of redevelopment sites to contractors. Application for disconnection should be done immediately the plans for redevelopment are approved. The actual disconnection should be done immediately after the tenants relocate.

All mandatory statutory requirements from CCN and NEMA should be secured before commencement of redevelopment projects. This will eliminate delays in commencement or progression of construction work after award of contract and hand over of redevelopment sites. The designs for redevelopment agreed upon by the client should be submitted immediately to CCN for approval during the pre contract stage. Immediately after approval by CCN approval should be sought immediately from NEMA.

#### **6.4 Areas of further study**

- a) Challenges in the management of redeveloped housing units in Ngara: A case of CSHSF and KRSRBS.
- b) The effects of infrastructure upgrade on the Redevelopment of Ngara Estate.

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APPENDIX 1: LETTER OF ALLOTMENT ISSUED TO CSHSF

REPUBLIC OF KENYA

Telephone: "LANDS", Nairobi

Teletype: Nairobi 7180209

Payment Secretary to the Treasury

P.O. box 30007

NAIROBI

REGISTERED

DEPARTMENT OF LANDS

P.O. Box 30089

NAIROBI

17th January, 20. 06

Ref. No. 209/63/A/VII/20

SIR(S)/MADAM, RE: NAIROBI CITY - NGARA CIVIL SERVANTS HOUSING ESTATE

LETTER OF ALLOTMENT

I have the honour to inform you that the Government, on behalf of \_\_\_\_\_ County Council, hereby offers you a grant of the above plot shown edged red on the attached plan No. \_\_\_\_\_ subject to your formal written acceptance of the following conditions and to the payment of the charges as prescribed hereunder:

AREA: 6.5 hectares (approximately).  
 TERM: 99 years from the 1.1.2006  
 STAND PREMIUM: Sh. Nil  
 ANNUAL RENT: Sh. Fivepence } Subject to adjustment on survey, but there is no claim for reduction in area on survey.

GENERAL: This Letter of Allotment is subject to, and the grant will be made under the provisions of, the Government Lands Act (Cap. 280 of the Revised Edition the Laws of Kenya) and title will be issued under the Registration of Titles Act (Cap. 281) or the Registered Land Act (Cap. 300).

SPECIAL CONDITIONS: See attached.

2. I should be glad to receive your acceptance of the attached conditions together with banker's cheque for the amount as set out below within thirty (30) days of the postmark:

	Sh.
Stand Premium	-
Rent from _____ to _____	-
Conveyancing Fees	1,250/0
Registration Fees	250/-
Rates .. .. on demand .. ..	-
Stamp Duty .. ..	30/-
Survey Fees .. ..	-
Road and Road Drains Approval .. ..	2,000/-
Others .. ..	-
Receipt No. _____ Less Deposit _____	-
TOTAL Sh.	3,530/-

[P.T.O.]

If acceptance and payment respectively are not received within the said thirty (30) days from the date hereof the offer herein contained will be considered to have lapsed.

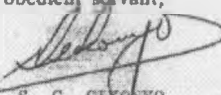
If the above plot is still unsurveyed at the time you commence building you should exercise the greatest care to ensure that any building or other works are contained within the boundaries of the plot for should you inadvertently overstep the aforesaid boundaries the cost of removal and reconstruction must be borne by you

The issue of the Government grant or lease will be undertaken as soon as circumstances permit.

Your full name(s) in BLOCK LETTERS should be given for the purpose of the grant which will be submitted later to you. The attached special conditions form part of the offer which should be accepted in writing. The Government shall not accept any liability whatsoever in the event of prior Commitment or otherwise.

I have the honour to be,  
Sir(s)/Madam,  
Your obedient servant,

Authority: Govt 209/63/A/VII/19  
of 28.1.2005

  
S. G. GIKOYO

for Commissioner of Lands

ENCL.

TO: P/S Ministry of Lands and Settlement, Nairobi

The Director of Surveys, Nairobi.

The Town Clerk. Nairobi City Council

The Clerk to the Council. County Council of .....

The District Commissioner. Nairobi cc. Scheme Manager  
Civil servants Housing  
scheme fund  
Nairobi.

The Director of Physical Planning, Nairobi.

District Land Officer. Nairobi

O/C Land Rents.

Rates Assistant.

The Accountant.

O/C Records.

Senior Plan Record Officer.

Plot File.

} All to note.

SPECIAL CONDITIONS

1. No further buildings shall be erected on the land nor shall additions or external alterations be made to any building otherwise than in conformity with plans and specification previously approved in writing by Commissioner of Lands and Local Authority. The Commissioner of Lands shall not give his approval unless he is satisfied that the proposals are such as to develop the land adequately and satisfactorily.
  
2. The grantee shall maintain in good and substantial repair and conditions all buildings at any time erected on the land.
  
3. The land and buildings shall only be used for Civil Servant Houses.  
.....
  
4. The building shall not cover .....of the area of the area of the land or such lesser area as may be laid down by the Local Authority in its by-laws.
  
5. The grantee shall not sell, transfer, sublet, charge of part with the possession of the land or any part thereof, without the prior written consent of the Commissioner of Lands.
  
6. The grantee shall not subdivide the land without the prior written consent of the Commissioner of Lands.
  
7. The grantee shall pay such rates, taxes, charges, duties, assessment or outgoings of whatever description as may be imposed charged or assessed by any Government or Local Authority upon the land or the buildings erected thereon including any contributions or other sum paid by the Commissioner of Lands in lieu thereof.
  
8. The Commissioner of Lands or such persons or authority as may be appointed for the purpose shall have the right to enter upon the land and lay access to water mains, service pipes and drains, telephone or telegraph wires and electric mains or all descriptions whether overhead or underground. The grantee shall not erect any buildings in such a way as to cover or interfere with any existing alignments or mains or service pipes or telephone or telegraph wires and electric mains.

9. If the land or any part thereof should cease to be used for.....


...*Civil Servant Houses*.....the land or any part thereof shall be deemed to have automatically reverted to the Government of Kenya without the necessity of any formal surrender thereof and the term hereby created shall de-factor determined in respect of the land or the part thereof as the case may be.

10. The Commissioner of Lands reserves the right to revise the annual ground rent payable hereunder at the expiration of every term. Such rental shall be at a rate to be determined by the Commissioner of Lands of the unimproved value of land as at the end of every tenth year of the term.

11. Notwithstanding anything to the contrary contained herein or implied by the said Government Land Act (Cap. 280) the Grantee shall on receipt of six months' notice in writing in that behalf surrender all or any part of the land required for public purposes without any payment or any compensation save in respect of such approved buildings as may have to be evacuated or demolished. No compensation shall be payable in respect of severance of the land by reason of such surrender.


12. Upon transfer of the land to individual beneficially, stand premium and Annual Rent will be assessed and charged.

**APPENDIX 2: TRESPASS AND VANDALISM AS REPORTED BY THE CONTRACTOR.**

**N.K. BROTHERS LTD.**  
**BUILDING AND GENERAL CONTRACTORS**  
PO BOX 10709-00400 - TELEPHONE 537894, 556125, 555425 - LUNGA LUNGA ROAD - INDUSTRIAL AREA - NAIROBI  
FAX: 254-20-556111/229903 E: nk.brothers@yahoo.com

Our Ref: NH/MOH/04/301/08 20<sup>th</sup> March 2008

The Scheme Manager  
C S H S F  
Ministry of Housing  
P O Box 30119-00100  
NAIROBI



Dear Sir,

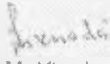
**NGARA PHASE II CIVIL SERVANTS TENANT PURCHASE HOUSING SCHEME**

Following the handover of the site on 17<sup>th</sup> March 2008 we report the following.

1. Existing tenants have pulled down windows and doors and other items of value as they vacate the buildings
2. We have had an influx of strangers on site who have taken to removal of items of value on the site
3. The service providers are yet to disconnect the services that is, power, telephone & water

Accordingly we are unable to ensure the security of the site and in line with deliberations with the client during the site handover, we recommend that the security be enhanced using the client's machinery.

Yours faithfully,

  
Pravin M. Khoda  
**DIRECTOR**

c.c. Baseline Architects  
P.O. Box 39928-00623, Nairobi

c.c. Costwise Associates,  
P.O. Box 1992-00100, Nairobi

PMK/ak



**APPENDIX 3: TRESPASS AND VANDALISM AS ADDRESSED BY THE MINISTRY OF HOUSING.**



**MINISTRY OF HOUSING**

Telegrams "HOUSING", Nairobi  
Telephone: (20) 2718050  
Fax (20) 2734886

ARDHI HOUSE  
1<sup>ST</sup> NGONG AVENUE  
OFF NGONG ROAD  
P.O. BOX 30119 . 00100  
NAIROBI

When replying please quote

Ref. No. MH/A/7/02/13

Date 25<sup>th</sup> March ,2008

Provincial Commissioner  
Nairobi Area Province  
NAIROBI

**SECURITY TO GUARD NGARA PHASE 11 SITE**

The Ministry of Housing handed over the above site to the contractor on 18<sup>th</sup> March, 2008 to start construction of houses for sale to the civil servants unfortunately, trespassers have invaded the site and started destroying doors and windows on the old buildings.

The purpose of this letter is to request you to deploy at least six APs to assist in removing the trespassers. The Ministry will avail transport to ferry the APs to the site.

**R. MUSE WANASAKAAMI**

R. MUSE WANASAKAAMI  
**FOR: PERMANENT SECRETARY**

**APPENDIX 4: DISCONNECTION OF EXISTING POWER LINES**



**MINISTRY OF HOUSING  
CIVIL SERVANTS HOUSING SCHEME FUND**

Telegrams: "MINHOUSING", Nairobi  
Telephone: Nairobi 710050  
When replying please quote

**A RDIII HOUSE  
1<sup>ST</sup> NGONG AVENUE  
OFF NGONG ROAD  
P.O BOX 30119-00100  
NAIROBI**

**Ref. No:** CSHD/SF/110/110/2/21 VOL.I/(69)

**Date:** 17 March 2008

Distribution Engineers  
Kenya Power and Lighting Company Ltd  
P.O Box 30099-00100  
NAIROBI

**RE: DISCONNECTION OF POWER AND REMOVAL OF KPLC METERS  
INCLUDING OVERHEAD CABLES AT NGARA, DESAI ROAD –  
NAIROBI**

The Proposed Ngara Phase II site has already been handed over to a contractor for purposes of redevelopment.

This is to request your office to have the above works carried out urgently to enable demolition of the existing houses.

  
Salim Ali Molla  
SCHEME MANAGER

c.c. Chief Building Surveyor

**APPENDIX 5: INITIAL CORRESPONDENCES ON THE APPROVAL OF NGARA HOUSING PROJECT BY CCN.**


**CITY COUNCIL OF NAIROBI**

FOR INQUIRIES ASK FOR  
M. M. NDIRANGU  
TEL. No 234281  
EXT. 4013

REF: CPU/DC/000123/38

DATE: 06/12/2006

CITY HALL ANNEXE  
1<sup>ST</sup> FLOOR  
P. O. BOX 30075  
NAIROBI, KENYA

  
**CITY PLANNING DEPARTMENT**

Director of Housing  
Housing Department  
Ministry of Housing  
P O Box 75323 - 00200  
NAIROBI

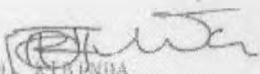
Dear Sir/Madam,

RE: PROPOSED HOUSING DEVELOPMENT ON NBI/BLK 38 ON DESAI ROAD NGARA

Your letter ref. No. HD/110/110/2/20 Vol. 1(46) dated 28th November 2006, on the above matter refers. In order to consider the boarding plans that the constructor has submitted to us for approval, you are required to submit plans for the proposed scheme to the Council for approval as per the requirements of the Physical Planning Act, Cap 286.

You are therefore, advised to inform the Chief Architect Ministry of Public Works and Roads to submit the said plans for our approval consideration.

Yours faithfully,

  
P. M. NDIRANGA  
DIRECTOR CITY PLANNING

DIRECTOR OF HOUSING  
MINISTRY OF HOUSING  
**11 DEC 2006**  
HOUSING DEPARTMENT  
P.O. Box 75323-00200 NAIROBI

cc/ow.

**APPENDIX 6: COMMENTS RAISED BY CCN ON NGARA HOUSING PROJECT**

EV 771

**CITY COUNCIL OF NAIROBI**

FLYING AREA	Plot No.	Deseri Road
	309/11166	
	DESCRIBE THE WORK. Domestic Building- 501No. Ngara Flats,shops and Nursery School	1.8 Billion
	AGENT SUB. Dominic Otego (A951)	30928
	Permanent Secretary Ministry	5323
52,945.56sqm		567,230/.

**DC**  
Due to the population increase in the neighbourhood the developer should consider the provision of more social infrastructure such as primary school.

**Supplication:** Consider the possibility of putting up one stream at the neighbouring primary school. Architect to discuss further with the AD/DC.

- DP**
- The primary school with with pre-primary facilities be provided be centrally located.
  - The manner in which the design is conceptualised and proposed physical form with the central core of 10 storeys surrounded by wings does not augur well for privacy and functionality during the operational phase.
  - Proposed to incorporate functional, detailed and comprehensive traffic management plan that prioritise non-motorised transport and permits limited vehicular access and circulation with concentrated on-site parking in a few designated places.
  - Provide adequate and functional safer recreational open spaces in clearly designated location and different age groups.
  - Submit EIA for evaluation and approval by NEMA.
  - Functional waste management plan to be incorporated with the proposal.
  - Location of the local shopping centre to be more centralised to set all resident clientele equitably to forestall establishment of kiosks and/or other informal business haphazardly.

**BOARDS**

- Traffic management reports to be submitted showing how the generated traffic will affect existing traffic and any proposed interventions
- Undertaking by the developer to rehabilitate any existing roads damaged by the development.
- Submission of civil eng. drawings for storm water drainage for the open areas upto suitable outfalls and any access to the development.
- The AD Engineering survey contains all the boundary details.

**APPENDIX 7: PROJECT CONSULTANT TRYING TO ADDRESS COMMENTS  
RAISED BY CCN.**



**BASELINE  
ARCHITECTS LTD**

Architectural Services, Landscape Designers & Interior Designers

P.O. Box 39928 - 00623  
Nairobi  
Tel: 2718351 / 2711873 / 2711876  
Fax: 254 - 2 - 2711874  
47 Mural Drive  
Off Ngong Road  
E-mail: bs@wananchi.com

Ref: ML&H/0804/03bsl

April 17, 2008

The Director,  
Town Planning Department,  
Nairobi City Council,  
**NAIROBI.**

Dear Sirs,

**RE: PROPOSED NGARA PHASE 2 CIVIL SERVANTS TENANT PURCHASE HOUSING  
SCHEME**

**RESPONSES TO PLAN APPROVAL COMMENTS**

We have received your comments from your Development Control, Forward Planning and Roads Sections, copy attached and we hereby respond as follows:

**DEVELOPMENT CONTROL COMMENTS**

The developer as given an undertaking in his letter attached to provide one stream at the neighboring primary school.

**FORWARD PLANNING COMMENTS**

- 1) This comment will be addressed by the Developer as indicated above in addition to the 7no. Classes for Nursery School provided in the Design
- 2) The site is surrounded by one and two storey buildings and as response to their privacy and height it was deemed prudent to have low buildings on the periphery of the development. The towers are placed in the middle with adequate distances to the low blocks for privacy.
- 3) The design provides 2m wide paved walkways for pedestrians adjacent to the 6m wide roads. It provides for defined parking bays/yard next to the respective blocks for



convenience and security. The size and number of the parking yards is a response to the NCC requirements of one and half per unit flat.

- 4) The design provides for small play grounds (20x15m) in central courts next to each block for children for easy monitoring and a common large play ground for adults located away from blocks.
- 5) The EIA report was done and submitted to NEMA.
- 6) We have provided 3No. 4x3m Garbage Collection centers located at convenient locations for easy access and disposal by Garbage Trucks for the Estate Management Agents who will be engaged.
- 7) The Estate's shopping centre is located in such way as to accord easy access to both Phases I and II of the development and the larger Ngara catchments without compromising on the security and privacy of the residents. The estate will have a resident property manager to instill oversee site issues with development oversight role of the NCC.

#### ROADS COMMENTS

- 1) The development is served by a slip road off the Desai Road. We have amended the roads for access/exit layout to provide access through three entrances to distribute traffic, the slip road will be widened to carry more traffic.
- 2) The developer will undertake to rehabilitate any roads which will be damaged during the construction period.
- 3) The Civil and Structural Drawings will be submitted once the Architectural Drawings are approved as per procedure.

Thank you.

Yours faithfully,

  
**MOTANYA D.O.**  
**BASELINE ARCHITECTS LTD.**

Cc.P.S-Ministry of Housing

**APPENDIX 8: MINISTRY OF HOUSING RESPONSE ON COMMENTS RAISED BY CCN.**



**MINISTRY OF HOUSING**

Telegrams: "HOUSING", Nairobi  
Telephone: (02) 2710451/2  
Fax: (02) 2734886  
When replying please quote

Office of the Permanent Secretary  
ARDHI HOUSE  
1<sup>st</sup> NGONG AVENUE  
P. O. BOX 30119 - 00100  
NAIROBI

Ref No. CS/IDE/110/110/2/21VOL.1/94

Date 18 April 2008

The Director  
City Planning and  
Architecture Department  
City Council of Nairobi  
NAIROBI

**RE: PROPOSED NGARA PHASE II CIVIL SERVANTS TENANT' PURCHASE HOUSING PROJECT**

This Ministry forwarded drawings for the approval of the City Council of Nairobi on 7<sup>th</sup> November 2007 (Registration No. EK 00771). The proposed development comprises 501No. flats, shops and a nursery school with all the necessary infrastructural facilities.

Following submission and your subsequent comments we wish to make reference to your first comment that the Ministry provides more classes in a centrally located primary school as a way of expanding educational facilities in the neighbourhood.

The proposal reorganised the need to enhance social infrastructure due to the increase in population envisaged. It is in this regard that a nursery school with eight classrooms and related facilities, shops and offices formed part of the proposed development.

However, I concur with your request to expand educational facilities in the locality. In this regard I wish to inform you that the Ministry will be ready and willing to put up an additional stream i.e 8No. classrooms in primary School under your jurisdiction and centrally located in relation to our proposed housing development.

  
Tirop Kosgey, CBS  
PERMANENT SECRETARY

**APPENDIX 9: CONCERNS BY THE CONTRACTOR ON DELAYS IN SECURING  
NEMA APPROVAL**



**N.K. BROTHERS LTD.**

**BUILDING AND GENERAL CONTRACTORS**



P.O. BOX 10709-00400 - TELEPHONE: 537894, 556125, 555425-LUNGA LUNGA ROAD - INDUSTRIAL AREA - NAIROBI  
FAX: 254-20-556111/229903 E-mail: nkbrothers@yahoo.com

Our Ref: NH/MOH/010/408/08

15<sup>th</sup> April 2008

The Scheme Manager  
C S H S F.  
Ministry of Housing  
P.O. Box 30119-00100  
**NAIROBI**



Dear Sir,

**NGARA PHASE II CIVIL SERVANTS TENANT PURCHASE HOUSING SCHEME**

**APPROVED DRAWINGS/CUTTING OF TREES**

We are yet to receive the above drawings for our use.

Upon application to NEMA for authority to cut trees, they have declined until we produce the approved drawings.

Kindly facilitate

Yours faithfully,

Premji M. Khoda  
**MANAGING DIRECTOR**

c.c. Baseline Architects  
P.O. Box 39928-00623, Nairobi

c.c. Costwise Associates,  
P.O. Box 1992-00100, Nairobi

PMK/ex



**APPENDIX 10: CONSULTANCY ON THE SINKING OF A BOREHOLE FOR NGARA HOUSING PROJECT FOR CSHS**

**ARMITECH**  
**CONSULTING ENGINEERS**  
APT #12 MILIMANI RD, MILIMANI ROAD P.O. BOX 85283 NAIROBI  
TEL: 11881 720954 FAX: 729536 E: milimani@armitech.net



*copy*

Ref: 206/103/13

27<sup>th</sup> March 2008

The Chief Engineer Materials  
Ministry of Roads and Public Works  
P. O. Box 30260  
NAIROBI

Dear Sir,

**RE: SITE INVESTIGATIONS - NGARA AREA, NAIROBI**

We refer to discussions (Kathinda/Wairagu) held today.

Enclosed herewith please find sketch layout indicating approximate locations of the boreholes, and a copy of your quotation; to facilitate commencement of the field work on Tuesday 1<sup>st</sup> April as promised.

Yours faithfully,

M. Wairagu  
for:  
**Armitech Consulting Engineers**



CC

The Project Manager  
Civil Servants Tenant Purchase Housing Scheme  
Ministry of Housing  
P. O. Box 75323  
Nairobi

Baseline Architects  
P.O. Box 39928-00623  
Nairobi

Costwise Associates  
P.O. Box 1992-00100  
Nairobi