# FACTORS INFLUENCING THE IMPLIMENTATION OF KENYA SLUMS UPGRADING PROGRAMME: A CASE OF KIBERA SLUMS IN NAIROBI COUNTY

BY

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# DECLARATION

I declare that this research report is the result of my own work and that it has not been submitted either wholly or in part to this or any other university for the award of a degree

Sign..... Date.....15/11/2011

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**L50/74830/2009**

This research report has been submitted for registration with my approval as the student's university supervisor

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# DEDICATION

I would like to dedicate my work to my wife Miriam Murenga and children Sarah Naima and Glen Ochieng who supported and encouraged me through this study

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# ABREVIATIONS AND ACRONYMS

| | | |
|---|---|---|
| AIDS | - | Acquire immune deficiency syndrome |
| CBD | - | Central Business District |
| CBO | - | Community Based Organisations |
| HIV | - | Human Immune Virus |
| IACC | - | Inter-Agency Coordination Committee |
| KENSUP | - | Kenya Slum Upgrading Programme |
| NARC | - | National Rainbow Coalition |
| PIU | - | Programme Implementation |
| SEC | - | Settlement Executive Committee |
| SPIU | - | Settlement Programme Implementation Unit |
| UN-HABITAT | - | Nations Human Settlements Programme |

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## ABSTRACT

There is growing global concern about slums, as manifested in the recent United Nations Millennium Declaration and subsequent identification of new development priorities by the international community. In light of the increasing numbers of urban slum dwellers, governments have recently adopted a specific target on slums, i.e. Millennium Development Goal 7, Target 11, which aims to significantly improve the lives of at least 100 million slum dwellers by the year 2020. This study investigated factors influencing implementation of the slums upgrading programmes with specific reference to the Kenya slums upgrading programme in Kibera slums. The Kenyan government's conceptualization of slum upgrading inserts benefits into a highly distorted market, preventing a balanced realization of the internationally recognized elements of the right to housing, and raising fears of displacement among slum residents.

The study established factors influencing slums upgrading programmes along the following objectives; - The influence of urbanization towards implementation of the Kibera slums upgrading programme; the influence of environmental factors on the Kibera slums upgrading programme ; the influence of cost of slums upgrading programmes on the Kibera slums upgrading programme; the influence of community participation in the Kibera slums upgrading programme; the extent to which security of land tenure contributes to the implementation of Kibera slums upgrading programme the findings of in this report indicate that there is high rural urban migration and over population in slum areas leading to overcrowding of houses.

This spill over has been experienced in the new project where houses meant for one family is shared by more than three households while others are occupied by tenants from upmarket estates. Slum culture and social spatial economic factors complicate slums upgrading programmes and raise the costs of upgrading. Majority of slum dwellers are petty traders and rely on small business enterprises to raise income. The slum upgrading programme as conceptualised does not recognise the need to alongside create markets and business centres. This has led to slum dwellers making makeshift structures to accommodate their trades distorting the upgrading process. Community participation in the slums upgrading programmes is low despite the immense benefits the majority of the slums dwellers attribute to the programme.

Awareness campaigns targeting beneficiaries is low and structures created for the participation of the community are not responsive. Community members are not adequately involved in the design, planning and implementation of the project. Successful community involvement requires support from the public sector such as provision of training, credit and technical assistance. The current strategy for human centred development for low-income communities does not follow the approach of public participation.

Security of land tenure is not guaranteed and could impede the improvement of the slums to be better places where slum dwellers can enjoy their rights to good housing conditions. This was evident by the fact that there are already legal cases in court contesting on how the upgrading programme is being carried out. Environmental factors impeded on the slums upgrading programme by raising the cost of the upgrading. Kibera is limited from expanding to the south and east by the Ngong River and Nairobi Dam, and to the north and west by the rail line to Kisumu. The terrain is hilly and sometimes steep, which can complicate the building process.

Residential structures encroach on the riparian areas of the river. Residential and commercial dumping of solid waste, human waste, medical waste, and waste water cause perpetual degradation of the environment and water quality

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the study

In 2001, 924 million people, or 31.6 per cent of the world's urban population, lived in slums. The majority of them were in the developing regions, accounting for 43 per cent of the urban population, in contrast to 6 per cent in more developed regions. Within the developing regions, sub-Saharan Africa had the largest proportion of the urban population resident in slums in 2001 (71.9 per cent) and Oceania had the lowest (24.1 per cent). In between these were South-central Asia (58 per cent), Eastern Asia (36.4 per cent), Western Asia (33.1 per cent), Latin America and the Caribbean (31.9 per cent), Northern Africa (28.2 per cent) and Southeast Asia (28 per cent). With respect to absolute numbers of slum dwellers, Asia (all of its sub-regions combined) dominated the global picture, having a total of 554 million slum dwellers in 2001 (about 60 per cent of the world's total slum dwellers (UN-HABITAT, 2008).

Africa had a total of 187 million slum dwellers (about 20 per cent of the world's total), while Latin America and the Caribbean had 128 million slum dwellers (about 14 per cent of the world's total) and Europe and other developed countries had 54 million slum dwellers (about 6 per cent of the world's total). It is almost certain that slum dwellers increased substantially during the 1990s. It is further projected that in the next 30 years, the global number of slum dwellers will increase to about 2 billion, if no firm and concrete action is taken (Tibaijuka, 2008).

To attain the goal of cities without slums, developing country cities should vigorously implement urban planning and management policies designed to prevent the emergence of slums, alongside slum upgrading and within the strategic context of poverty reduction. The problem of urban slums should be viewed within the broader context of the general failure of both welfare oriented and market-based low-income housing policies and strategies in many (though not all) countries. Slums develop because of a combination of rapid rural-to urban migration, increasing urban poverty and inequality, marginalization of poor neighbourhoods, inability of the urban poor to

access affordable land for housing, insufficient investment in new low-income housing and poor maintenance of the existing housing stock.

Upgrading of existing slums should be combined with clear and consistent policies for urban planning and management, as well as for low-income housing development. The latter should include supply of sufficient and affordable serviced land for the gradual development of economically appropriate low-income housing by the poor themselves, thus preventing the emergence of more slums. At the broader national scale, decentralized urbanization strategies should be pursued, where possible, to ensure that rural-to-urban migration is spread more evenly, thus preventing the congestion in primate cities that accounts, in part, for the mushrooming of slums. This is a more acceptable and effective way of managing the problem of rapid rural-to-urban migration than direct migration control measures. However, decentralized urbanization can only work if pursued within the framework of suitable national economic development policies, inclusive of poverty reduction (UN-HABITAT, 2008).

There is growing global concern about slums, as manifested in the recent United Nations Millennium Declaration and subsequent identification of new development priorities by the international community. In light of the increasing numbers of urban slum dwellers, governments have recently adopted a specific target on slums, i.e. Millennium Development Goal 7, Target 11, which aims to significantly improve the lives of at least 100 million slum dwellers by the year 2020. National approaches to slums and to informal settlements in particular, have generally shifted from negative policies such as forced eviction, benign neglect and involuntary resettlement, to more positive policies such as self-help and in situ upgrading, enabling and rights-based policies. Informal settlements, where most of the urban poor in developing countries live, are increasingly seen by public decision-makers as places of opportunity, as 'slums of hope' rather than 'slums of despair'. While forced evictions and resettlement still occur in some cities, hardly any governments still openly advocate such repressive policies today.

There is abundant evidence of innovative solutions developed by the poor to improve their own living environments, leading to the gradual consolidation of informal settlements. Where appropriate upgrading policies have been put in place, slums have become increasingly socially cohesive, offering opportunities for security of tenure, local economic development and improvement of incomes among the urban poor. However, these success stories have been rather few, in comparison to the magnitude of the slum challenge, and have yet to be systematically documented.

Kenya's slums are growing at an unprecedented rate as more and more people move to Kenya's cities and towns in search of employment and other opportunities urban areas offer. The government and local authorities are faced with the serious challenge of guiding the physical growth of urban areas and providing adequate services for the growing urban population. Kenya's urban population is at present 40 percent of the total population. More than 70 percent of these urbanites live in slums, with limited access to water and sanitation, housing, and secure tenure. They have poor environmental conditions and experience high crime rates. If the gap continues to grow between the supply and demand of urban services such as housing, the negative consequences of urbanisation can become irreversible.

The Kenyan Slum Upgrading Programme (KENSUP) was initiated in 2000 through an agreement between the previous Government of Kenya (under President Moi) and UN-Habitat. It was renewed in January 2003 with the new NARC (National Rainbow Coalition) government under President Kibaki. An early decision was to pilot KENSUP in Nairobi's largest slum, Kibera, which houses over 600,000 people on 110 hectares of land, in 13 'villages'. After a detailed situation analysis in 2001, it was decided to limit the pilot to the Soweto 'village', the south-eastern sector of the Kibera slum, which has a population of 60,000 people. The Kibera-Soweto pilot project was launched on World Habitat Day in 2004 with a graphic media presentation of the planned redevelopment of the slum into orderly blocks of flats with 50m2 two-bed roomed units to be privately owned (Huchzermeyer, 2008).

The Kenya Slum Upgrading Programme (KENSUP) was set up as a collaborative initiative that draws on the expertise of a wide variety of partners in order to address this issue. The Government of Kenya executes and manages the programme, the

Ministry of Housing and the relevant local authorities implement it, and UN-HABITAT, civil society partners, participating local communities, and the private sector complement and support their efforts. KENSUP's aim is to improve the livelihoods of people living and working in slums and informal settlements in the urban areas of Kenya through the provision of security of tenure and physical and social infrastructure, as well as opportunities for housing improvement and income generation. Implementation is underway in four Kenyan cities and the Government of Kenya aims to expand the programme to others.

UN-HABITAT's involvement in Kisumu, Nairobi, Mavoko, and Mombasa focuses on different aspects of slum upgrading from implementing pilot projects aimed at finding suitable models for scaling up and replicating activities, to building the capacity of local authorities.

## 1.2 Statement of the Problem

This study investigated factors influencing implementation of the slums upgrading programmes with specific reference to the Kenya slums upgrading programme in Kibera slums. The Kenyan government's conceptualization of slum upgrading inserts benefits into a highly distorted market, preventing a balanced realization of the internationally recognized elements of the right to housing, and raising fears of displacement among slum residents. An analysis of the wider tenement market confirms these fears, and suggests that market distortions must be addressed in order for slum upgrading to succeed (Huchzermeyer, 2008).

Upgrading projects focus on providing basic services to improve the well-being of low income communities, including a range of infrastructure interventions frequently undertaken in conjunction with social interventions, such as the regularization of areas with insecure tenure. Other infrastructure improvements include water, sanitation, waste collection, housing, access roads, footpaths, storm drainage, lighting, public telephones, schools, health posts and community centres. Social improvements can include better provision of health and education services, day care, training, and social protection programs. With the projected increases in slum population, the demand for urban upgrading interventions is expected to grow.

Given the trends in urbanization and slum populations, slum upgrading interventions may be an important component of the development process. Investing resources in slum upgrading projects should ideally be based on clear evidence of which specific interventions are more effective. What impact do upgrading projects have on the welfare of the population and how can they be improved to meet the needs of the urban poor. Similarly, policymakers need to understand which specific interventions are more effective than others. These questions can be answered by carrying out appropriate study on the impediments facing the slum upgrading programmes. However, because of the many facets of upgrading interventions and the difficulties faced in implementation, conducting a study on the upgrading programmes can be complex. Comprehensive studies involve focusing on a multitude of potential challenges at the community, institutional and individual levels. This study will seek to asses some of the impediments likely to have effect on slum upgrading projects, and provides some recommendations for coping with the challenges.

## 1.3 Purpose of the Study

This study investigated factors influencing the implementation of the slums upgrading programmes with specific reference to the Kenya slums upgrading programme in Kibera. The study established the coping mechanisms used by the actors in the upgrading programme in addressing these challenges. Finally the study has suggested alternative approaches towards addressing factors that impede slums upgrading programmes.

## 1.4 Objectives

i. Investigate the influence of urbanization towards implementation of the Kibera slums upgrading programme
ii. Identify and investigate environmental factors that influence on the Kibera slums upgrading programme.
iii. Establish the influence of cost of slums upgrading programmes on the Kibera slums upgrading programme
iv. Evaluate the influence of community participation in the Kibera slums upgrading programme
v. Explore the extent to which security of land tenure contributes to the implementation of Kibera slums upgrading programme

## 1.5 Research Questions

i. How does urbanization influence the implementation of the Kibera slums upgrading programme?

ii. What are the environmental factors that influence the implementation of the Kibera slums upgrading programme?

iii. Which are the slums upgrading costs that influence the Kibera slums upgrading programme?

iv. What is the influence of community participation in the Kibera slums upgrading programme?

v. How does security of land tenure influence the implementation of Kibera slums upgrading programme?

## 1.6 Significance of the study

"All progress is born of inquiry. Doubt is often better than over confidence, for it leads to inquiry and inquiry leads to invention" is a famous Hudson Maxim in context of which the significance of research can well be understood. Research inculcates scientific and inductive thinking and it promotes the development of logical habits of thinking and organization (C.R. Kothari 2009 p. 5)

The findings of this study can be used by practitioners involved in slum upgrading programmes to;-

i. Design policies that strengthen capacity of institutions involved in slum upgrading projects.

ii. Design methodological approaches on how to engage with communities and institutions involved in slums upgrading projects.

iii. Recommendations will be used by planners and project managers to further generate knowledge that can be used by scholars for further research on slums upgrading programmes.

iv. Generate knowledge that can be used for comparative studies on similar slums upgrading programmes in Kenya and other parts of the world.

## 1.7 Delimitation of the study

The study was conducted in Kibera slums, Soweto east village. This is because of the ongoing slums upgrading projects in the area. The researcher had also very little resource to extend the study to other localities such as Kisumu, Mavoko and Mombasa where similar projects are ongoing. The questionnaires was only be administered to the residents who are beneficiaries of the slums upgrading programme while interviews was done with individuals directly involved through their organizations in the upgrading programme.

## 1.8 Limitations of the study

The investigation of this research was carried out in Kibera Soweto east slum where data was collected. Those included in the research are Maji na Ufanisi, for their contribution in participation of communities in slum upgrading projects. The study did not focus on other slum upgrading programs elsewhere due to time and limited resources on the part of the researcher. Not all organizations involved in the slums upgrading projects were included in the research. The time frame available to conducting the research was limited and therefore the research findings are not used to generalise on the other similar programs. However the findings could be used to conduct comparative studies on similar projects.

## 1.9 Assumptions of the Study

The study was conducted with the assumption that institutions and individuals involved in the slums upgrading programme would be willing to provide relevant data that is accurate and reliable for the study. There was voluntary participation from people involved in the slums upgrading project. Respondents were literate and provided the necessary information sought from them by the research team.

## 1.10 Definition of significant terms

**Slums upgrading project-** projects directed at enhancing living conditions in slums and bringing basic services to the dwellers

**Slums dwellers-**Residents who live in informal settlements

**Upgrading** - Systematic attempt to improve living conditions for people residing in informal settlements" (Tayler and Cotton, 1993 :)

**Slum upgrading-**Physical, social, economic, organizational and environmental improvement undertaken cooperatively among citizens, community groups, business and local authorities to ensure sustained improvement in the quality of lives for individuals.

**Slum-** Unplanned and under severed neighbourhoods typically settled by squatters without legal recognition

**Land tenure -** The right of an individual or group to occupy or use a piece of land. It can be via ownership or lease.

**Urbanisation-** Urbanization principally refers to dynamics of the proportion of total population living in urban areas

**Cost-** The resources spent in the slums upgrading programme to provide housing and construction of infrastructures for the slum dwellers

**Community participation-** The involvement of the community in the slums upgrading programme in every aspect of the project activities

## 1.11 Organization of the study

The study is organised into five chapters. Chapter one covers the background to the study, statement of the problem, purpose of the study, objectives of the study, the research question, the significance of the study, the limitations of the study, the delimitation of the study, the basic assumptions and the definition of significant terms. Chapter two contain the literature review. This chapter is organised systematically into themes. Chapter three entail the research methodology. This include the research design, target population, the research instruments, the sampling procedures, reliability and validity of the instruments, the process of data collection and the data analysis technique to be used. Chapter four comprises of the data analysis and discussion of the research findings while chapter five contain summary, conclusion, recommendations and suggestions for further studies

## 1.12 Summary

This section looks at the introduction, background to the study, problem statement, objectives, research questions, limitations and definition of terms and is the first chapter of the research on factors influencing the Kenya slums upgrading program.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

The literature reviews existing literatures and is organised in several themes which include: - The nature of the slums; Historical perspective on the slum; types of slums; slums upgrading programmes, the Kibera slums upgrading project. The chapter further reviews literature on studies highlighting constraints and challenges in the slums upgrading programmes with a view to analyse how actors in the upgrading programmes in the Kibera slums upgrading project are coping with this impediments. Theories suggested by other scholars on development of slums are analysed to help further understand the concepts of slums upgrading projects. The chapter finally looks at the conceptual framework and a summary of the literature review process.

## 2.2 The Nature of Slum

Slums constitute the most important and persistent problem of urban life; they are the chief sources of crime and delinquency, of illness and death from disease. Slums are of all types, shapes, and forms. Bombay has its packed multi-storeyed shawls, New York its Harlem and its lower east side, Chicago its black belt, and London its well-known east end. Families in Bangkok crowd together in "pile villages," composed of poorly constructed wooden shacks raised in wooden stilts along the waterfronts. There are the tin shacks, bamboo huts, and straw hovels along the small lanes of Calcutta, Dacca, and Lagos, which steam with the high humidity and stink from the open drains. Impoverished shanty towns of squatter shacks constructed from junk cover the hill sides of Rio de Janeiro, lima, Hong Kong , and other Asiatic, African, and south American cities. No slums are more crowded than those of Hong Kong and Singapore, where a single room house from ten to forty families, each with only "bed space" and no element of single privacy. In areas of canton, shanghai, and Hong Kong hundreds of thousands of families live in water front sampan or "floating" slums.

Slums vary from one type to another, but certain general patterns of slums life are universal. Although the slum is generally characterized by inadequate housing, deficient facilities, overcrowding, and congestion, it involves more than these elements.

Sociologically it is a way of life, a subculture with asset of norms and values, which is reflected in poor sanitation and health practices, deviant behaviour, and characteristic attributes of apathy and social isolation.

The word, "slum" has long had a negative connotation, has been almost an epithet, implying something evil, strange, to be shunned and avoided. In fact the word itself is apparently derived from "slumber," as slums were once thought by the majority to be "unknown, back streets or alleys, wrongly presumed to be sleeping and quite." Emotional attitudes towards the slum are still reflected in popular definitions and value-laden terms that emphasize its filth and squalor, its poor social conditions, and the presence of vicious characters, the slum, for example, has been described as a street alley, court, etc. situated in a crowded district of a town or city and inhabited by people of a low class or by the poor; a number of these streets form thickly populated neighbourhood or district of a squalid and wretched character. Of all the characteristics of a slum, the physical conditions have been emphasized most often. Slums have commonly been defined as those portions to cities in which housing is crowded, neglected, deteriorated, and often obsolete. Many of the inadequate housing conditions can be attributed to poorly arranged structures, inadequate light and circulation, poor design and lack of sanitary facilities, overcrowding, and inadequate maintenance. In developing countries many cities have large squatters' areas, shanty towns built of scrap materials on unauthorized land and providing minimal protection from the elements.

## 2.3 Historical Perspective on the Slum

Some of the slums of European and Asiatic cities can be traced back for hundreds of years. They existed in the days of what has been called the "pre-industrial city." characterized by both physical condition and a specific way of life. The crowded conditions in India and Hong Kong are often attributed to Asiatic norms, the filth of the slums of Lima and Rio de Janeiro to the Latin American way of life, the drunkenness and violence of Negro and Puerto Rican Harlem to the racial and ethnic

backgrounds of the people who reside there. The westerner who views the slum, for example, as "an awful Indian city" like Calcutta, Bombay, or Delhi with ethnocentric smugness may see, in an Asiatic city slum, merely a reflection of Asiatic rather than western values. However, these conditions were characteristic of many European countries less than a century ago and of the tenement living of English, Irish, Germany, and other immigrants.

Bad as the slum conditions of contemporary India and other former colonial possessions are, they merely duplicated the living conditions of large segments of the eighteenth and ninetieth century urban populations of their erstwhile rulers. For some perspective on contemporary slums it is well, therefore, to examine the historic Jewish ghetto, the British of the nineteenth century, and American slum and the tenement house.

### 2.3.1 The Jewish Ghetto

The Jewish ghetto was a unique type of medieval urban slum. It therefore warrants special mention in a history of slums. Its uniqueness stems from an interesting and complex set of social, religious, political, and economic factors that created a unified, homogeneous group, which often lived for centuries isolated from the rest of society in slum-like conditions without adopting some of the corresponding ways of life.

Most of the ancient and early medieval Jews lived in towns rather than in rural areas, and they chose to live together in specific quarters of the towns, as did other racial and economic classes. The very requirements of the Jewish religious culture almost demanded that they live where they could be near the synagogue, special bakeries, slaughterhouses, baths, courts of justice and cemeteries. No formal edict of church or state established the ghetto, and originally it was not an arbitrary creation designed to impose segregation. The first written charter granting a particular area of the city to a local group of Jews emphasized that the ghetto was being granted as a right, which included protection and the privilege of residence and trade. The first compulsory segregation of Jews within the ghetto occurred in Spain and Portugal at the end of the fourteenth century; and in 1516, it was imposed in the Venetian Republic. Pope Paul IV established the Roman ghetto in 1556, and it was not long before almost every city with Jewish population had a ghetto. The Jews were not allowed outside their ghettos at night, on Sundays, or on Christian holidays.

The most serious effect of the walled-in ghetto was the severe overcrowding that quickly developed as the population grew, for only rarely was the area of the ghetto enlarged. Although the ghetto was not necessarily a slum when first assigned to the Jews. It soon became a partial one because of the overcrowding. In some cities, the transfer of houses of prostitution to the ghettos added to the latter's ill repute among the gentiles, and fires and epidemics often destroyed portions of the areas and their populations.

The ghetto of Frankfurt was one of the most famous. Frequent fires swept through it, and even the Jewish cemetery displayed signs of overcrowding, for the graves were close together with two or three on top of one another.

### 2.3.2 British Slums of Nineteenth Century

Cities of England experienced rapid growth in the eighteenth century, as the industrial Revolution brought greater opportunities for employment in Liverpool, Birmingham, London, and Sheffield and as the opportunity for families to earn livelihoods in the country decreased. As the factories grew with the industrial revolution, workers poured into the cities in much the same way as they are now doing in the cities of developing countries, with entire families living in single rooms close to their work.

A proclamation by the English government during the seventeenth century had a lasting effect on slum development. During the reigns of the Tudors and Stuarts, it prohibited the construction of new dwellings in London, except those "fit for inhabitants of the better sort." The stated justification of this limitation on construction was a fear that large numbers of people would give rise to all kind of disorders and that the plague would spread more easily if growth were allowed to continue. The result of the proclamation, of course, was not a cessation of housing construction for the poorer classes but rather overcrowding in those areas where the edict was not effectively enforced: subdivision into smaller units of existing buildings, conversions of stables and ware houses into dwellings, and patching up of tumble-down buildings and cellar additions. Buildings constructed in violation of this proclamation were wretched places, built as cheaply as possible and hidden in alleys and courts, as they might be ordered removed at anytime. Some of the poorest parts of eighteenth-century London, characterized by dilapidated courts and alleys and crumbling tenements were the direct results of this proclamation.

### 2.3.3 The American Slums and the Tenement House

The development of slums in the United States was closely related to the successive waves of immigration that swept the country. The earliest mention of poor housing in such cities as New York and Boston made note of the fact that recently arrived foreign groups were forced to live in the worst neighbourhoods. Lack of housing and consequently high rents, even at that early date, were responsible for the fact that increasing numbers of immigrant families had to find accommodations in stables, attics, and damp cellars, all small and congested, with poor water supplies and inadequate toilet and washing facilities. Throughout the nineteenth century, descriptions of the immigrant slums were quite similar, all making much use of the words "miserable," "squalid," "crowded," "filthy," "foul," "deplorable," "dark," "damp," "evil," and others of similar connotation. The earliest slums in the growing cities were composed of houses originally built for the use of one family each, which had been subdivided for the use of many families as the numbers of newly arrived immigrants seeking housing increased. Diseases like yellow fever swept these areas, as in New York City in 1795, when one doctor wrote: "... I have, in a former letter, given you some account of the condition of that part of the town where the fever most prevailed; it is now to be noticed that it is in that area that the greatest number of the poor, especially the immigrant poor, reside.

## 2.4 Types of slums

The word "slum" is often used to describe informal settlements within cities that have inadequate housing and squalid, miserable living conditions. They are often overcrowded, with many people crammed into very small living spaces. These settlements lack basic municipal services such as water, sanitation, waste collection, storm drainage, street lighting, paved sidewalks and roads for emergency access. Most also do not have easy access to schools, hospitals or public places for the community to gather. Many slums have been un serviced and unrecognised for long periods, over 20 years in some cities. Like all informal settlements, housing in slums is built on land that the occupant does not have a legal claim to and without any urban planning or adherence to zoning regulations. In addition, slums are often areas where many social indicators are on a downward slide; for example, crime and unemployment are on the rise. All slums are not the same, and some provide better living conditions than

others. Likewise, slum dwellers are not a homogeneous population, but a diverse group of people with different interests, means and backgrounds. Slums are also a significant economic force. In many cities, as much as 60 percent of employment is in the informal sector of the urban population. In the developing world, one out of every three people living in cities lives in a slum (Cities Alliance, 2011). Slums in Nairobi are generally of two types, namely squatter settlements and those that arise out of illegal sub-divisions of either government or private land.

A number of slums are located on land unsuitable for construction, especially of residential housing. Informal settlements are widely located across the city. However, their location has largely been defined by their proximity to areas where their residents are able to get employment. For example, Kibera, one of the largest slums has access to the Industrial Area. Most slum dwellers walk to work in the morning to the industrial area and nearby sources of employment.

### 2.4.1 Official and Unofficial Definitions of Slums

The concepts slums and informal settlements are often used interchangeably in Kenya and there is no official definition of slums or informal settlements. Instead, different works have provided characteristics of slums and settlements. The MATRIX study of 1993 provides a good summary of these characteristics: Structure owners have either a quasi-legal right of occupation or no rights at all; Structures are constructed largely of temporary materials and do not conform to minimum standards; The majority of structures are let on a room-to room basis and the majority of households occupy a single room; Densities are high, typically 250 units per hectare compared to 25 per hectare in middle income areas and 15 per hectare in high income areas; Physical layout is relatively haphazard making it difficult to provide infrastructure; The majority of the inhabitants have very low incomes. Urban services such as water and sanitation are non-existent or minimal; Morbidity and mortality rates caused by diseases stemming from environmental conditions are significantly higher than in other areas of the city. The informal settlements/slum dwellers seem to also share the view of slums/informal settlements as being difficult areas, which lack most basic services and infrastructure (Mitullah, 2002)

The growth of slums in Nairobi has resulted from variety of factors, historical and contemporary in nature. Olima (2001) has argued that: "the forces that have contributed to urban spatial segregation in Nairobi are many and varied. Some are legal and economic whereas others are cultural. During the colonial period, the people of Kenya witnessed a large-scale government sanctioned spatial segregation based on race and reinforced by planning laws as well as exclusionary zoning regulations.

The segregation/division along racial lines divided the city into four distinct sectors; North and East defined as the Asian Sector (Parklands, Pangani and Eastleigh);East and South East defined the African Sector (Pumwani, Kariokor, Donholm); South East to South marked another small Asian enclave before it was bounded by the Game Park (Nairobi South, Nairobi West).

Finally, the line North and West marked the European area." Syagga et al (2001:30-31) in a further elaboration of this point out that the forces of rural-urban migration and income differentials between the rural and urban areas, as well as within urban areas have contributed to the growth of slums in Nairobi. Other factors include unemployment and underemployment, and increased population densities in the rural areas that have forced especially the young to move to urban areas. Majale (2000:4) points out that in the colonial era, slums essentially developed because of three main factors: Displacement of Africans to make room for European Settlers.

The Colonial Government's policy of racial segregation, accompanied by a de facto policy of not allocating enough resources to cater for the housing needs of the Africans, and Clearance of "sub-standard" housing, with the consequent relaxation in policies and laws that prohibited movement of Africans to Nairobi, resulted in a major shift in population to Nairobi, without a concomitant rise in housing provision. Indeed, as Shihembetsa (1989) pointed out, the independence government allowed new immigrants to put up shacks within the city as long as they were not located near the Central Business District. This was accompanied by state action that protected some settlements while demolishing others (Syagga et. al. 2001:34).

## 2.5 Kibera Soweto East

Nairobi's slums are among the most dense, insecure and unsanitary in all of Africa, and Kibera in Nairobi has the unfortunate distinction of being the worst of the worst. It is regularly described as the worst slum on the planet. It houses somewhere between 800,000 and 1.2 million people nearly one quarter of Nairobi's population in just 630 acres located approximately four miles from Nairobi's central business district. The living conditions are harsh and profoundly unforgiving. The deprivations people face on a daily basis is fundamental: severe overcrowding, terrible sanitation, chronic disease, malnutrition, and night time insecurity. These conditions have evolved over decades of indifference and neglect by both municipal and national governments. Various non-governmental organizations, many with the World Bank's help; have sponsored slum upgrading projects over the past several decades with varying degrees of impact and hardly any unqualified success. Finally acknowledging the problem's severity and persistence, Kenya's national government took definitive action in 2002 by creating the Kenya Slum Upgrading Program (KENSUP).

This national office focuses on implementing projects that are sustainable, inclusive, democratic, accountable, and transparent and that will provide communities with improved housing and access to basic services secure tenure, and opportunities to generate income (Mulcahy and Chu ,2007). This study will examines one of KENSUP's pilot projects the Kibera Soweto Project which is a joint effort between the Kenyan government and UN-HABITAT that focuses on just one of Kibera's 12 "villages" of 70,000. It focuses on the impediments posed by existing conditions; the various elements team members develop to address these challenges, the project's benefits and valuable lessons that can be learnt in implementation of similar projects.

### 2.6 Slum upgrading programmes

Initially, public policies sought to eradicate slums and relocate residents to housing projects on the outskirts of the city, and this is still the approach in many areas (Silva, 1994). This policy proved ineffective over time as relocated residents often left their new homes and moved back to new slums. Moreover slum areas have grown considerably, so generalized re-housing was no longer feasible.

The current approach is to upgrade slum areas, attempt to keep the community in the same location by building infrastructure, and seek to regularize property titles. Whether the community stays on the same site or not will also depend on the risks involved; relocation may be required when sites are near waste landfills, under overpasses, or are endangered by mud slides or frequent floods in riverside areas.

Slum upgrading projects may be divided into four basic stages Abiko (1995).

a) Preliminary study: this stage is crucial for deciding the technical, physical, and legal feasibility of implementing and upgrading project in a certain area. This stage will include initial contacts with residents;

b) Registration: Once an upgrading project is seen as feasible, residents should be registered. To avoid swelling the numbers benefiting from upgrading, it is advisable to have the local population assist with the registration procedure and decide which families will benefit;

c) Project design: The area selected will be subdivided to accommodate the largest number of registered families in the best manner possible, with each family's lot supplied with water, electricity, internal thoroughfares and drainage, telephone and sewerage facilities, and spaces required for utilities to install these systems. This means designing the project in the way that meets needs most efficiently;

d) Execution: construction time will depend on the terrain, the availability of finance and community involvement. Flat terrain and an easily accessed site will speed construction and vice-versa. Execution time may vary from several months to years.

Rehabilitating degraded settlements poses a challenge for specialists and institutions involved, be they municipal governments, national government agencies, state companies, or non-government organizations. There have been innumerable cases of attempts to rehabilitate settlements of this type in Brazil, but little is known in relation to the outcome of these interventions.

Some sectoral initiatives have been implemented with solutions specifically designed for slums. Water and sewerage utilities have used condominium sewerage (Melo, 1994) or 32 mm HDPE, High Density Polyethylene, which is more malleable than

rigid PVC. Electricity utilities have used smaller metal posts with mains switchboxes and metering for several households. However, sector initiatives in slums may often be consolidating an urban structure that is densely occupied, unhealthy and inadequate, and at risk geo-technically. Installing water supplies in a slum means higher sewage volumes that will require drainage. So when installing piped water in a slum, there has to be a new sewerage system too. Drains for rainwater must be installed; otherwise this water will flow into sewers. There has to be garbage collection to complement water supplies, sewage and rainwater drainage in order to avoid solid waste blocking drains and sewers. There must be a suitable road system for garbage collection to be carried out properly. So there is obviously a need to integrate interdependent initiatives relating to degraded settlement rehabilitation. This is no easy task since the different technical specialties involved are associated with institutions that have their own particular characteristics at different levels of government. Providing environmental education along with these initiatives is crucial to the process of rehabilitating degraded settlements and helping ensure sustainability for upgraded slums. Experience has shown that rehabilitated urban environments are at risk of deteriorating again if there is no community involvement in the process of maintaining a new habitat.

Another extremely important issue is the cost of these interventions. The state has to respond to a wide range of demands from society, so public policy makers must pose the question: what are the costs and benefits of slum upgrading projects; Is upgrading the most appropriate approach to the slum problem;

Finally, in terms of mobilizing financial resources, the traditional focus fails to make use of more innovative financing strategies such as: a) strategies for involving the private sector through partnerships that do not rely exclusively on public financial resources; b) clear and transparent subsidy strategies; c) family-based credit for construction, extensions or improvements to housing units; d) strategies for recovering costs of investments in building and infrastructure.

## 2.7 The Kibera slums upgrading project

Kenya's capital city Nairobi has some of the most dense, unsanitary and insecure slums in the world. Almost half of the city's population lives in over 100 slums and squatter settlements within the city, with little or inadequate access to safe water and sanitation. Housing conditions in slums are deplorable and most residents have no form of secure tenure. The Kenya Slum Upgrading Programme (KENSUP) is the result of a meeting in November 2000 between the then President of Kenya and the Executive Director of UN-HABITAT at which the Executive Director offered to spearhead a slum upgrading programme for Kenya starting with Nairobi's largest slum, Kibera. The programme was jointly funded by the UN-HABITAT/World Bank Cities Alliance and the Government of Kenya. The Grant agreement was signed in July 2002. A Memorandum of Understanding was signed between the Minister of Roads, Public Works and Housing and UN-HABITAT's Executive Director on 15 January 2003. This marked the starting point of the Preparatory Phase of the programme, which is jointly funded by the Government of Kenya and the Cities Alliance.

The objective of the programme is to improve the overall livelihoods of people living and working in slums through targeted interventions to address shelter, infrastructure services, land tenure and employment issues, and impact of HIV/AIDS in slums. The process started with the preparation of programme documents, which outlined the elements of the programme, institutional arrangements and a logical framework for implementation.

### 2.7.1 Activities

**I) Institutional arrangements for implementation -** The following institutional structures have been established:

a) Inter-Agency Coordination Committee (IACC) with membership of the Ministry of Roads, Public Works and Housing, the Ministry of Lands and Settlement, the Ministry of Local Government, the Ministry of Water and the Nairobi City Council;

b) A national KENSUP Secretariat at the Ministry of Roads, Public Works and Housing;

c) Programme Implementation (PIU) at the Housing Development Department of the Nairobi City Council;

d) Settlement Programme Implementation Unit (SPIU) to be based in each of the settlements;
e) A Settlement Executive Committee (SEC) made up of community members in each settlement.

**(II) Social and Economic mapping** - The Social and Economic mapping exercise has resulted in:

a. An Actors Survey that has documented the various actors in the 12 villages in Kibera
b. Social Mobilization activities that have been undertaken through numerous meetings to sensitize the communities on slum upgrading;
c. A Communication/Media Strategy to ensure that all aspects of the Programme are effectively communicated to all stakeholders operating in Kibera;
d. A Social and Economic Profile of Kibera documented by Research International, an international consulting firm.

(III) **Physical Mapping** - A digitized base map of Kibera features:

a. Detailed information showing the physical features of the 12 villages
b. Detailed information on structures in Kibera, describing ownership, use and type of structure (permanent or temporary);
c. A typical layout for Kibera-Soweto showing the rearrangement of structures to lessen density and provide services.

**(IV) Decanting site** - A decanting site, provided by the Government, is being prepared. The decanting site will house the residents of Kibera who will have to be moved to make way for upgraded infrastructure and services.

## 2.8 Constraints in Slum Upgrading Programmes

Although there has been significant progress in the formulation and implementation of slums upgrading programmes and to some extent strategies in the past decades as summarized earlier, many constraints still effectively hinder progress in slums upgrading in developing countries, particularly for low income and other vulnerable groups. These constraints include but are not limited to the following issues:-

### 2.8.1 Urbanizations and Housing

Urbanisation is now an accepted feature of the modern world. The world has become progressively more 'urban' and less 'rural', with the process of urbanisation often closely intertwined with 'development'. This urbanisation process, however, has not necessarily resulted in a better quality of life for everybody, producing a situation that effectively contravenes the principles of sustainability. An urgent need exists in the cities of developing countries to accommodate rapid population growth, provide essential infrastructure, address the problems of rapidly deteriorating physical environments and, above all, to improve housing, especially for the poor. This is the case in big cities, where the inequalities have become increasingly apparent over the years and where access to urban land (or the lack of it), which occurs in a grossly unequal way, effectively constitutes a real social barrier (Moraes and Abiko, 2007).

Urbanization principally refers to dynamics of the proportion of total population living in urban areas. Other features of urbanization are the concentration of nation's multi sectoral functional centres and infrastructures. The key areas of concern and importance in urbanization are the urban poor and slum settlements, sustainable transport, economic development, reconciling industrial development and its environmental impacts, and changes and trends in governance. There is broad consensus on the fact that housing has central importance to everyone's quality of life and health. Housing, besides being a very valuable asset, has much wider economic, social, cultural and personal significance.

The way in which housing is produced and exchanged has an impact over development goals such as equity and poverty eradication; construction techniques and location of housing can influence environmental sustainability and the mitigation of natural disasters; and the design of dwellings both reflects and protects important elements of culture and often religious beliefs.

With the current rates of urban growth and the inability of housing delivery systems to cope with the need in developing countries, the housing crisis is likely to increase in the future. It is estimated that in the next 2 decades, about 35 million units need to be constructed annually to accommodate newly formed households and replacement of inadequate units in urban areas. These demographic trends will place an increasing

stress on governments to pursue right policies and improve the capacity of housing delivery processes. As a starting point, housing should not be looked at as a problem area requiring major social spending but as a means for promoting and mobilizing savings, expanding employment and economic activity particularly as a tool for poverty alleviation. Income and employment opportunities generated by housing construction are amplified by multiplier effects in the economy. Although the economic and social advantages of housing development have been recognized in general in majority of developing countries, there are a number of obstacles that hinder the progress of housing delivery processes.

### 2.8.2 Population Growth

Countries around the world are urbanising rapidly as more people migrate from rural areas to the cities and natural population growth continues to occur.

Today, more than half the world's population resides in urban areas. More than 90 percent of this urban growth is taking place in the developing world.

Urban migration happens for a number of reasons:

***The pushing and pulling forces of migration.*** Some people migrate because they are pushed out of their place of origin by factors such as natural disasters or sustained ecological changes. Others are pulled to a new destination by better job prospects, education, health facilities, or freedom from restrictive social or cultural realities

***Low incomes from agriculture.*** Most people in rural areas work in the agricultural sector, which is highly dependent on weather. Also, rural land is limited, its fertility sometimes low or declining, land holdings are small, farm debts are high, and many households have become landless. As a result, overall rural incomes are low.

***Better job prospects.*** In comparison with rural areas, urban areas offer dramatically increased job opportunities. In addition, because urban cultures are often less constrained than those in villages, cities can also offer greater prospects of upward social mobility.

***People know what cities can offer them.*** Most migrants make a deliberate choice to stay or leave in rural areas. Improved transport, communications and links with earlier

migrants have all made rural populations much more aware of the advantages and disadvantages of urban life, especially regarding job opportunities and housing.

***Urban migration is often a survival strategy for rural households***. Sometimes, rural households split into several groups located in different places—rural areas, small towns, and big cities—in order to diversify their sources of income and be less vulnerable to economic downturns (Cities Alliance, 2011).

### 2.8.3 Slum upgrading policies

In many countries, standards for building and land subdivisions do not consider affordability issues and have a general nature. Standard subdivisions are often based on regulations of the pre independence periods prescribing large plots and banning building next to plot boundaries. This results in large plot sizes and high infrastructure costs.

Building standards are also high urging and encouraging needy groups to get involved in informal building activities. These regulations and standards should be adjusted also in consideration of affordability criteria.

Several studies have noted the lack of any clear policy that would facilitate and guide urban development, a situation reflected in the blindness of the city authorities who for decades continued to dump garbage close to the residence of the poor slum dwellers. Furthermore, most slums are Located on sites not planned for housing and residents are exposed to different forms of pollution including industrial pollution. Industries emit hazardous waste indiscriminately near poor settlements.

Various interventions continue to be undertaken by the government and city authorities with the support of donors, civil society organisations, including Community Based Organisations (CBOs). In some slums such as Mathare 4A, Kibera, Huruma and Korogocho housing and infrastructure programmes are being put in place through joint efforts of the government, donors and civil society organisations. These interventions aim at addressing the problems of slums or informal Settlements (UNHABITAT 2003).

### 2.8.4 Community participation

Since the 1970s, community and public participation has been practiced in urban upgrading projects as a means to enhance the achievement of project objectives. Community involvement in this initial form was often limited to project implementation and generally dependent upon the pre-existing willingness, cohesiveness and organizational capacity of the targeted communities. In most of the cases participation in early urban upgrading gave communities a high degree of direct control over implementation decisions. This experience greatly contributed to lay the foundations for more sophisticated forms of Community driven development approaches in subsequent urban upgrading projects. Policies and practices of provision of ready housing units by governmental agencies to the needy households have failed almost everywhere. This approach is simply not sustainable and cannot reach the scale. On the other hand, the poor have demonstrated that they can effectively participate in the housing process provided that they are assisted. Most rural migrants bring with them a self-help tradition that could be used for the construction of dwellings. Self-help and community participation however does not develop by itself.

Successful community involvement requires support from the public sector such as provision of training, credit and technical assistance. The current strategy for human centred development for low-income communities follows the approach of public participation. Community development based on active-participation has transformed a welfare-oriented approach with masses of passive beneficiaries to a development aimed at disadvantaged communities through self-help. The key instrument of this strategy is community empowerment. World Bank defines 'Empowerment is the process of increasing the assets and capabilities of individuals or groups to make purposive choices and to transform these choices into desired actions and outcomes'.

The comprehensive process of empowerment entails, raising consciousness, developing relevant skills, knowledge, identifying issues and needs, prioritising them and evolving the whole of project cycle of strategic selection and implementation of the most appropriate solution, and evaluation of the outcomes. Effective empowerment is an enabling process of imbuing all the planning, design and

management processes, associated technical issues, assessing resources and constraints, negotiation and implementation with the support of a host of actors like CBOs, NGOs, government officials, politicians and often donor agencies (Moonasingha 2000).

### 2.8.5 Land Tenure

Promoting security of tenure is a prerequisite for sustainable improvement of housing and environmental conditions. Squatter settlements upgrading projects need to be carried out addressing tenure issues to prevent/reduce evictions. Governments should focus on regularization schemes in order to provide incentives to families to invest in their homes and communities. Promoting security of tenure can also support better functioning of rental

Lack of adequate land for urban development particularly for low-income housing is perhaps the single most important impediment in achieving the goal of shelter for all. Proper records and registration of land is the first step in formulating and implementing a strategy on land. It is estimated that only about 1 per cent of land in the Sub-Saharan African countries are covered by any kind of cadastral system. Land cadastral systems should urgently be improved in developing countries and particularly in Africa. Scarcity of land leads to escalating land prices, overcrowding of existing neighbourhoods, and illegal invasion of vacant land and growth of squatter settlements. This trend can only be reversed by the provision of adequate and affordable land for low-income housing.

In order to increase the supply of urban land, the financial and technical capabilities of the municipalities must be strengthened. It is also necessary to create conditions that would facilitate the growth of private land development agencies. Governments should formulate a regulatory framework ensuring that such private sector land developers will serve all income groups. Land tenure is the right of an individual or group to occupy or use a piece of land. It can be via ownership or lease.

A Land right is about confidence in the future. People who are safe from eviction with a sense of long-term stability whether they own the land or not are much more likely to invest in their housing or community. Over time, these incremental improvements by residents can upgrade the entire community. There must also be a

clear legal framework behind land rights. Often, slum dwellers face significant obstacles to owning or obtaining the rights to land. Land markets are frequently dysfunctional, and inappropriate standards or regulations make it nearly impossible for local authorities to find enough well-located, serviceable and affordable land for the residents of overcrowded slum settlements. In addition, control of land is often connected to political patronage and corruption, making it difficult to get clear information about land ownership, use and availability (Cities Alliance, 2011).

Promoting security of tenure is a prerequisite for sustainable slums upgrading programmes. Squatter settlements upgrading projects need to be carried out addressing tenure issues to prevent/reduce evictions. Governments should focus on regularization schemes in order to provide incentives to families to invest in their homes and communities. Promoting security of tenure can also support better functioning of rental housing markets. There is no doubt that every effort should be made to make best use of existing housing stock and improve the quality of living in these settlements

### 2.8.6 Environmental factors

With between 800,000 and 1.2 million people living on 630 acres of sloped government land, the intense overcrowding and the complete lack of infrastructure present the greatest physical challenges to upgrading. In Soweto East, the focus of the Kibera Soweto Pilot Project—70,000 residents live on 52.8 acres. The approximately 2,880 structures in Soweto East are served by only 100 toilets, 50 baths, and no social infrastructure of any kind.

These highly congested living conditions profoundly increase health risks and diminish quality of life for Kibera's residents. With a large majority of households averaging five people living in single rooms of less than 10 square meters, infectious and skin diseases spread easily and food contamination is common. Families burn wood, charcoal and kerosene indoors for cooking and lighting, which contributes to a high incidence of upper respiratory infection and irritation. Children play in roads and dump areas for lack of adequate open spaces. Together, these circumstances create an incredibly stressful living environment.

Kibera is limited from expanding to the south and east by the Ngong River and Nairobi Dam, and to the north and west by the rail line to Kisumu. The terrain is hilly and sometimes steep, which can complicate the building process. Residential structures encroach on the riparian areas of the river. Residential and commercial dumping of solid waste, human waste, medical waste, and waste water cause perpetual degradation of the environment and water quality. Some pit latrines are located inappropriately close to water sources, causing black water to seep into these sources, while inadequately maintained latrines negatively affect the general environment and community health. Dust pollution from unpaved roads and footpaths causes' skin and eye irritation (Mulcahy and Chu, 2007). Environmental pollution is the biggest challenge of sustainable urbanization, since the latter depends on economic growth through industrialization. Industries are the biggest polluters of water, air and land in the cities that render valuable water and land resources unsuitable for human use, and pollute the urban atmosphere beyond safe limits. All nations have the legislation of environmental impact assessment in view of sustainable development.

All significantly large development projects require an environmental impact assessment report for the project to be implemented. The environmental assessment report identifies the adverse impacts on the environment and recommends the options to mitigate the adverse impacts to a sustainable level. Since industries produce liquid, solid and gaseous wastes, they need to incorporate technology to treat these wastes on the industrial sites before discharged to the environment. These waste treatment measures add to the costs of the projects, may require more land area and adversely affect the cost-benefit appraisals. Mostly the small industries fail to comply with waste discharge standards. Alternatively all industrial effluents should be discharged into a public sewer and then treated at a wastewater treatment facility. The effluent discharge consent charges should encourage onsite treatment of wastes.

The waste treatment technologies often turn wastes into by-products or make them fit for other uses such as energy or irrigation. Such innovative integrated projects improve the cost-benefit ratio and make the urbanization sustainable. Studies suggest that in some countries environmental impact assessment and planning procedures are not integrated, and the enforcement of environment protection law is ineffective.

Globally, poor populations contribute far less to the impacts of climate change and environmental pollution than the rest of the population who consume more energy, space, food, and resources in general. However, squatter settlements are a cause of urban blight in the local environment.

Many slum settlements are located in low-lying areas of canal and river banks, floodplains, and steep hill slopes, vulnerable to floods, river bank erosion, tidal inundation, landslides, and dangerous locations like railway margins, landfill sites, and industrial sites polluted with industrial wastes. A general hazard in slum settlements is environmental health. Wastes and excreta on the unpaved footpaths are breeding grounds for disease carrying helminths and pathogenic organisms.

The slum settlement should be served with paved footpaths and drainage channels to ensure proper drainage and minimize insanitary conditions in the environment. Some hill sites are vulnerable to landslides, and mainly low-income communities live in such locations in cities, because the value of such land is very low. It is extremely expensive to engineer hillside stability, and there are limits to the effectiveness of any attempt to thwart a natural process. Both hard and soft approaches are implemented in an attempt to mitigate landslide hazards. Soft solutions include, avoiding landslide areas by zoning and regulation, engineering measures like drainage improvement, wire nets, gabions, low- height retaining walls, and bioengineering of planted vegetation.

### 2.8.7 Cost of slum upgrading

Financing and facilitating infrastructure to meet basic needs of many urban communities have been difficult for the majority of governments and local authorities. This is, in most cases, due to the high standards that make provision of infrastructure very costly. Too often, infrastructure services are unnecessarily subsidized and frequently the subsidies are wrongly directed.

As public authorities have not been able, in general, to provide infrastructure to the growing number of urban communities, individual households, community groups and informal enterprises have increasingly taken over this task. Building materials often constitute the single largest input to housing construction in most developing

country cities particularly in Africa. It is estimated that the cost of building materials alone can take up to 70 per cent of a standard low-income formal housing unit.

Many African countries, despite the fact that they are endowed with abundant natural resources that can meet their need for building materials production, depend largely on imported building materials and technologies. While considerable research is conducted in some countries on local building materials, only few of these research initiatives have succeeded in disseminating findings to the potential users.

Studies of upgrading slum costs have shown that they are more complex in nature than infrastructure costs in normal areas, and this often impedes a modelling of their approach. Rocha et al (2002) studied a number of upgraded slums in the Guarapiranga Program and detected quite a large variation in their upgrading costs. He obtained a variation of approximately 30% around the average. The causes of this variation were ascribed to a number of factors: different services executed in the different slums, varying unit costs of the same service from one slum to another; and application of different urban planning standards. The study does not provide a detailed exploration of all possible factors having a bearing on costs, but it does proposes a simplified model for estimating slum upgrading costs on the basis of three components.

The first was infrastructure costs (drainage, cleaning or covering rivers or streams, paving, sewage drains). In the slums he analyzed, a linear correlation between these costs and the area of the road system, modelled followed a linear expression. Therefore by estimating the area of the road system planned, it would be possible to estimate the cost of this item. What was not so clear was how the area of the road system would be estimated. The second is the cost of superstructure (relocating or re-housing). Relocation involves building homes in the slum itself, which corresponds to 20% of the cost of superstructure, in the cases he analyzed. The unit cost for relocation was estimated at 37.8% of total costs. The third and last cost component is related to operational activities (executive project, management and maintenance of construction work, technical consulting services and social assistance).

Data obtained from the slums he analyzed showed this cost being estimated at 30% of the total for infrastructure and superstructure combined. Whereas urbanization costs in formal-sector areas are restricted to infrastructure networks, in slums the networks constitute a component of overall costs. Another is that slums have specific features,

so upgrading costs are of a different nature in relation to formal-sector areas where the cost factors are road system design and density of occupation.

In slums the factors weighing most on costs are: firstly, the size of the slum, in terms of number of families, and the situation of the surrounding area — larger slums and those with more precarious infrastructure are more expensive to upgrade; secondly the physical conditions of slums (topography, geotechnical conditions and locations alongside streams or rivers). Densely occupied slums in critical situations physically drive up the costs of building due to the increased number of construction tasks and services and the need to use special techniques or manual labour for jobs that could be done mechanically, such as excavations.

In this respect, the costs of slum upgrading are higher than those for formal-sector areas. The costs of slum upgrading infrastructure amount to approximately one third the cost of a completed low-income standard home. The third characteristic aspect of upgrading costs is that, factors vary greatly from one slum to another so there is a wide range of costs across different slums. It is believed that this conclusion poses the need for planning initiatives to make advance estimates of the magnitude of costs involved in upgrading the areas in question and using the data as criterion when deciding slums to be covered.

### 2.8.8 Slum Culture

Culture might be defined as a system of symbols or meaning for normative conduct standards, having three distinct properties: it is transmitted, it's learned, and it is shared. The slum has a culture of its own, and this culture is a way of life. This learned way of life is passed from generation to generation, with its own rational, structure, and defence mechanisms, which provide the means to continue in spite of difficulties deprivations. This slum culture affects virtually every facet of the lives of most of the world's slum dwellers. It is largely a synthesis of the culture of the lower class and of what is referred to as the culture of poverty.

The culture of the slum has a number of characteristics that vary only in degree. Although these cultural patterns are typical of the slum from an over-all perspective, they vary in detail from slum to slum, from ethnic group to ethnic group, from society to society.

Cultural adequacy can play an important role in defining slum upgrading approaches that do not undermine tenure security, affordability and location. Cultural adequacy is closely associated to habitability. Official standards of habitability are usually determined by western, 'urban' norms. Slum demolition (often linked to plans for slum redevelopment), in many cases is officially justified on the basis of 'inhabitability' of the existing slum. UN-Habitat (2003a:153) notes that demolition on this basis 'normally creates more problems than it solves'.

The rural-to-urban migration process, which leads most households into urban slums, inevitably involves an assimilation of elements of western culture. However, the social acceptability of single and double rooms in Kenya's urban slums, with no water and sanitation, is to some extent underpinned by rural norms.

In this context, non-western housing norms such as rooming (to decent standards) and shared access to water and sanitation can protect upgraded environments from market pressures, by ensuring that the housing units are not desirable to those with western demands, who command more resources and can, buy out the original slum dwellers. The enormous multi-storey rooming market that exists above slum rooming on Nairobi's housing affordability ladder also points to the current social acceptance, thus 'habitability', of single rooms. Two-roomed units (with communal access to toilet and washing facilities) have not taken off at scale in the tenement market. In Huruma, many single room tenements provide interconnecting doors between pairs of rooms to allow tenant households the choice of renting one or two rooms.

However, most tenants do not make use of this option. Single-roomed units with communal facilities have been provided in official housing projects in Nairobi. The green field site and service development practice in Nairobi has sought to respond to the massive market pressures for private rental investment, a frequent reference point being 'what went wrong' in the former site and service area Dandora, funded through the World Bank's Urban I project and completed in 1977 (Shihembetsa,1989). This project targeted homeownership of 100–160m2 sites at the poor, but has to a large extent transformed into a multi-storey tenement district with profits extracted by middle- to high-income landlords residing elsewhere.

Conceptualized to encourage small-scale landlordism, the home-ownership beneficiaries of Dandora were to finance their subsidized mortgage payment by renting out rooms.

However, qualification criteria meant that many of the beneficiaries were so poor that while servicing the mortgage, they did not have the resources even to build themselves a room on their serviced site (Shihembetsa, 1989).

With no prospects of ever generating finance through their property, beneficiaries sold the serviced sites to richer individuals who had the capital not only to build the permitted number of rooms, but to multiply these vertically up to seven floors above ground.

In a subsequent attempt at more successful targeting, Nairobi planners conceptualized smaller, communal units, therefore less attractive to the middle class and less viable for large scale multi-storey rental investment (Wanjohi Consulting Engineers et al., 1983). The Umoja II estate south of Dandora included 'condominiums', six one-roomed units registered on an individual purchase basis, surrounding a communal courtyard with communal kitchen and wash space (Loeckx, 1989).While beneficiaries find that aspects of this concept (e.g. positioning of the collective cooking area) are not resolved in a culturally sensitive manner, this project nevertheless was considered habitable and relatively successfully targeted in its early years. However, even in the condominiums of Umoja II, market pressures are such that investment in multi-storey tenements is gradually reshaping this development. It appears that despite the small size of the units, the form of titling encouraged rent speculation and trade of the units. Given these well-analysed and much-debated experiences in low cost Greenfield development in Nairobi, it must be questioned why the planners for the Kibera-Soweto slum 'upgrading' (based at the UN-Habitat head-office in Nairobi) insist on inappropriate standards of habitability, conceptualizing two bed roomed fully tradable units to middle class standards.

One cannot blame Kibera residents for assuming that the project is deliberately attempting to create housing for the middle class and deprive current Kibera residents of their right to a convenient location in Nairobi. Habitability as a concept is applied in the defence of slums when demolition and redevelopment threaten. People live in slums, therefore slums, as inadequate as they may be, are habitable, and often more

habitable/affordable/convenient than the alternative that is provided through the redevelopment. In the massive slum clearance programmes of the past (in the West), an area being officially declared a 'slum' meant it was beyond repair/restoration, therefore justifying a cycle of eviction, demolition ('slum clearance') and redevelopment, always associated with gentrification or displacement of the original population. Slum improvement as a concept (as opposed to slum redevelopment) emerged out of a struggle by slum tenants for recognition that these environments were indeed habitable and could be improved (Bodenschatz, 1987).

Tenancy, in particular exploitative large-scale landlordism in dense rooming districts, is a capitalist social relationship that developed in the mid to late 19th century in the West in response to massive housing demand and cultural assimilation, both associated with urbanization and industrialization (Harvey, 1985). In Nairobi, it has its roots in the first decade of the 20th century, when renting of rooms emerged in Pangani, in the absence of any other affordable housing for Africans (Hirst and Lamba, 1994). After independence, rooming flourished in the well located Mathare Valley, with private housing companies investing in this form of housing at scale (Etherton, 1971) setting the trend for large-scale landlordism, which predominantly provides rooming for the poor. The concept of rights has as important role to play in Nairobi today as in the exploitative capitalist context of the West, in which the concept first emerged.

## 2.9 Theoretical frameworks

Several theories have been advanced to explain the continued existence of slums. Changes in urban land-use patterns and lack of housing, which lead to overcrowding and improper maintenance, have commonly been emphasized

### 2.9.1 Changes in Urban land use patterns

According to one theory, largely derived from study of cities in the United States, the slum develops within the zone surrounding the central business districts. Early in the development of the city, this area is home of the upper classes, a fashionable residential district. With the expansion of commercial and industrial ventures, the neighbourhood becomes infiltrated with industrial, storage and wholesale operations, and the better to do move farther out, away from the city centre. Low-income

workers, including recently arrived poor regional ethnic and racial groups, then move in and become the exclusive inhabitants of these areas. Because the owners receive insufficient rental income to maintain their buildings properly, conditions decline and because of overcrowding, carelessness, and destructiveness by the occupants, the neighbourhood becomes a slum. The slums develops into an area of highland values but cheap rents, a curios contradiction that results from the lands being held ''in pawn'' so to speak, on the assumption that the central business district will expand, bringing into the area new business firms, manufacturing establishments ,and high-priced rental units like hotels and apartments hotels. The landowners, who seldom live in the area, do not wish to improve slum housing as it will eventually be torn down. This facts and the rather undesirable location result in cheap rentals, yet the land remains so high-priced that, when an occasional apartment is erected it must be of high-rise proportions to be profitable.

A modification of this theory based on city growth is that of the city pattern as a pie, divided into wedge-shaped sections. According to this theory, industrial areas follow river valleys, watercourses and railroad lines out from the centre and workingmen's houses cluster along them, with factories tending to locate even at the outer fringes of the city. According to the sector view, the best housing then does not fringe the entire city but only parts of it. The main industrial areas of the future may well be located on the out skirts of cities in new industrial towns and suburbs, as they already beginning to be.

It has been claimed, however, that the pattern of land distribution in which the slum is located in or near the central city represents a generalization fulfilled only in industrial cities, where centralized commercial and industrial activities are necessarily more prominent, and does not apply to "pre-industrial" cities. In such cities, formerly common in Europe and still common in the developing countries of Asia and other parts of the world, the central areas are generally inhabited by the elite, which the slums located on the peripheries where "houses toward the city's fringes are small, flimsily constructed, often one-room, and hovels into which whole families crowd." The disadvantages of distant locations are borne by the poorest, who must travel the farthest to gain access to the city's facilities. This pattern of slum development is seen today in the extensive squatter or shanty towns that have sprung up around the cities in Asia, Africa, and Latin America to which large numbers of rural people have

migrated. In some instances, they are located closer to the cities on unoccupied or undesirable land. After surveying seven sociological studies of Latin American cities, Schnore found that the cities do not follow the zonal pattern that Northern American cities supposedly do. The continuing existence of slums has also been explained by the fact that "their inhabitants cannot afford good housing and because private enterprise will not supply it at prices they can afford." The blame for their existence, according to Colean, must be shared by the landlords, the tenants, and the community: the landlords because of their indifference to their property and their willingness to profit from overcrowding; The tenants because they are too poor, too ignorant, or too indifferent to maintain the dwellings properly; and the community at large because it allows slums to develop and to persist and fails to support government efforts to enforce decent standards.

One theory of slums advanced by an English writer lists four factors: the physical surroundings of the house, the physical conditions of the house, the owner, and the tenant. His suggested means of improving or eliminating the slum demonstrates emphasis on the physical environment as perceived cause of slum conditions. The three essential tools for "slum-breaking" are foresight in construction, careful maintenance by owner and tenant, and expert supervision by the authorities. A relatively recent theory of slum growth and development emphasizes the role of current urban-renewal projects in creating new slums in areas where old slums have been eliminated. The main point of this theory is that slum clearance reduces the number of dwellings available to low-income families and that, as a result, they cannot bargain with landlords of the prospective dwellings to obtain repairs and improvements as conditions of rental. As slum clearance continues, tenants in low-rent non slum housing will have a harder time convincing landlords to spend funds for maintenance. If economic growth, full employment, or the lowering of racial discrimination toward job applicants should raise the real income of a neighbourhood's population, however, housing quality would tend to improve.

## 2.10 Conceptual framework

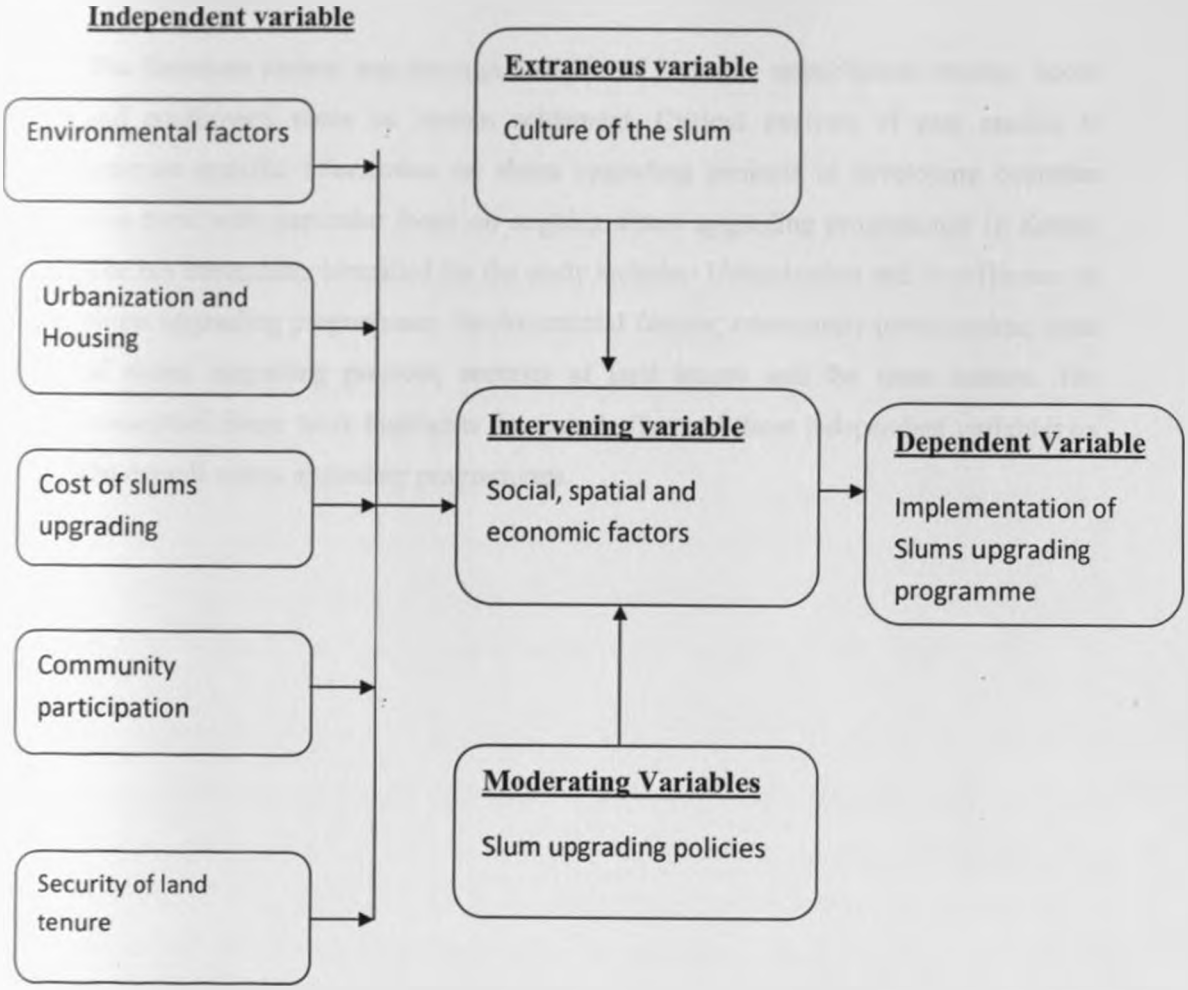


**Figure 1 Conceptual framework**

## 2.11 Summary

The literature review was through analysis of journals, unpublished articles, books and conference notes on human settlement. Critical analysis of past studies to generate specific information on slums upgrading projects in developing countries was done with particular focus on ongoing slums upgrading programmes in Kenya. The key constraints identified for the study include;- Urbanization and its influence on slums upgrading programmes; Environmental factors; community participation; costs of slums upgrading projects, security of land tenure and the slum culture. The conceptual frame work highlights the casual effects of these independent variables on the overall slums upgrading programmes.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

In this research project the survey aimed at getting data on the factors influencing the Kenya slums upgrading programmes with particular reference to the Kibera slums upgrading project in Soweto east slums. The project is being undertaken by the Kenyan government in collaboration with UN HABITAT as the main partners. There are also other institutions involved in the exercise. This chapter outlines the methods to be used in this study to collect and analyse data. It discusses the research design, the target population, sampling procedures, methods of data collection, validity and reliability and operational definition of variables. Finally the chapter consists of data analysis methods and their justifications and then a summary of the chapter.

## 3.2 Research Design

"A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure'' the research design is the conceptual structure within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data (Kothari 2009). The research design used for this particular study was descriptive analysis where data is presented through tables, frequencies and graphs

Bell (1993) notes that the use of primary data is ideal and can provide answers to questions what? Where? When? How? And that they help draw on information and insight provided by respondents and the interviews usually reveal aspects that are not covered by data and provide verification and reliability (Cohen.2002).

The main objective of this study was to investigate factors influencing the successful implementation of slums upgrading programmes Kenya. The research therefore focused on collecting primary data to help answer the research questions embarking on a quantitative descriptive survey in which questionnaire and interviews was used to collect information from the informants and then narratives analysed qualitatively.

## 3.3 Target population

According to Sherlock (1999) access for research in an ethnographic study is much easier if it is one's own community. Although one has to be aware of potential bias resulting from being an insider .This can be advantageous in having local knowledge to contribute to the information gained from the community and also have more sensitivity to the impact of the research on community. The targeted location is Kibera slums Soweto east the researcher targeted institutions directly involved in project implementation, 1200 beneficiaries of the project and key government officials directly in charge of reporting on the progress of the slums upgrading programme.

## 3.4 Sampling procedure and Sample Size

All items in any field of inquiry constitute a 'Universe' or 'Population'. A complete enumeration of all items in the 'population is known as a census inquiry. It can be presumed that in such an inquiry, when all items are covered, no element of chance is left and highest accuracy is obtained. But in practice this may not be true. Even the slightest element of bias in such an inquiry will get larger and larger as the number of observations increases. Moreover, there is no way of checking the elements of bias or its extent except through a resurvey or use of sample check (Kothari 2009). A sample design is a definite plan for obtaining a sample from a given population. In this particular study the researcher used probability sampling procedure under which every item in the universe had an equal chance of inclusion in the sample. According to Sekaran (1999), simple random sampling process where random selection of subjects gives more information within a given sample size. This was applied in this study since the population from which the sample is to be drawn represent a homogeneous group.

There are two alternative approaches to determining the size of the sample. The first approach is ''to specify the precision of estimation desired and then to determine the sample size necessary to insure it'' and second approach '' uses Bayesian statistic to weigh the cost of additional information against the expected value of the additional information (Kothari 2009 p.175). According to Gay and Airasian (2003) a sampling of 10 up to 20 percent of the population is allowed in descriptive research where population is significantly large. In this research, a sample size of 10% with 1200

populations will be studied. Simple random sampling will then be used to ensure that all individuals in the selected population have equal chance to be selected in the sample.

## 3.5 Methods of Data Collection

The task of data collection involved both primary and secondary data. The research design being a survey used primary data collection methodology to collect data through observation and direct communication with the respondents by use of questionnaires and personal interviews.

Questionnaires were formulated and used to collect information from residents of Soweto east slums. The tool was designed to address the question of the study. Closed ended questions was used for easy of coding and analysis while open ended questions was used to elicit more information for the respondents to complete missing links. The questions were in the form of a constructed survey based on different likert several point scale. It is very important to stress that the question were carefully prepared and the necessary questions properly set through appropriate editing and assessment by the researcher. The questionnaires were personally administered to the respondents by the researcher to ensure reliability and validity.

Interviews were conducted to get information from key informants involved in project support and implementation which include; - Inter-Agency Coordination Committee (IACC); the national KENSUP Secretariat; Programme Implementation (PIU) at the Housing Development Department of the Nairobi City Council; Settlement Programme Implementation Unit (SPIU) in Kibera; Settlement Executive Committee (SEC) made up of community members.

Secondary data means data that are readily available i.e. refers to data that has been collected and analysed by someone else.

When researcher utilises secondary data, then he has to look into various sources from where he can obtain them. In this case he is certainly not confronted with the problems that are usually associated with the collection of original data. Secondary data may either be published data or unpublished data ( Kothari's 2009). During the study the researcher reviewed published data from government of Kenya, ministry of

Housing, ministry of local government, UNHABITAT, books and research journals by scholars on slums upgrading programmes.

As Dr. A.L Bowley (1937) very aptly observes that it is never safe to take published statistics at their face value without knowing their meaning and limitations and it is always necessary to criticise arguments that can be based on them.

On this note the researcher made a minute scrutiny because it is just possible that the secondary data may be unsuitable in the context of the problem in the study.

## 3.6 Validity and Reliability

According to Mac Govern (2006), the research must consider that the validity is an indicator of whether the research measures what it claims it measure. John (1999), Explains that questionnaires have greater validity if considered in the ease of use, in terms of completing the questionnaire easily and ease of analysis, as well as the importance of examining the reliability. This assumes that the questionnaire has to achieve the same results before and after the test. If the test or research is done again in the same context or if it gives different results then it is not reliable. The questions must be reliable and easy to measure the variables identified in the study (Sekaran, 1992). According to Sandros, Lewis and Thornhill (1996) before using your questionnaires to collect data it should be tested. The purpose of the pilot test was to define the questions that respondents will have no difficulties in answering the questions as well as recording the data. In addition, it enabled the researcher to obtain some assessment of the question, validity and reliability of data collected. There is a temptation in a study to go straight to the question, but however had pressed for time, do your best to give questions a trial (Bell, 1994). Pilot surveys refer to the initial testing of one or more aspects of the research design (Sekaran, 1992). Therefore, for these reasons and before the questionnaires were ready for the field operations a pre-tested was undertaken in Soweto village zone C.

This was done with 10 respondents among the prospective research participants in Soweto east slum where the slums upgrading programme is being undertaken. According to Bell (1994) 10 questionnaires is a good minimum for a pilot study.

## 3.7 Operational definition of variables

This area examined the interaction between independent and dependant variables and the extent to which each variable impact in the other. Operational definition is asset of procedures that describes the activities to be performed in order to establish degree of existence of a concept Mutai (2000). A variable is anything that can take on differing values. The conceptual framework figure (1.1) illustrates factors that influence the slums upgrading programmes.

In this study the following variables will be used;

### 3.7.1 Independent Variables

**Environmental factors:** Before projects are commissioned, environmental impact assessments are conducted to ascertain the possible positive or negative impact that may occur if and when the projects are implemented.

Based on the outcome of such reports projects are allowed to continue if only the project team outlines the control measure or mitigating factors that will be considered to address the environmental impact.

**Urbanization and Housing:** Urbanization principally refers to dynamics of the proportion of total population living in urban areas. Other features of urbanization are the concentration of nation's multi sectoral functional centres and infrastructures. High concentration of human population and infrastructures are reminiscent in slum areas. Slums upgrading programmes must be cognizant of this, as this could impede the upgrading exercise

**Cost of slums upgrading programmes:** Availability of financial resources and the necessary human capital or institutions will impact either positively or negatively on the project. The organization of the resources is key in the success of any project

**Community participation:** Is the involvement of community members in the project through the self-help tradition. The poor have demonstrated that they can effectively participate in the housing process provided that they are assisted.

Based on the level of their involvement project remain sustainable through community ownership or are rejected by the beneficiaries resulting in wastage of resources.

**Security of Land tenure:** Promoting security of tenure is a prerequisite for sustainable improvement of housing and environmental conditions. Squatter settlements upgrading projects need to be carried out addressing tenure issues to prevent/reduce evictions.

### 3.7.2 Extraneous Variable

**Culture of the slum:** The slum has a culture of its own, and this culture is a way of life. This learned way of life is passed from generation to generation with its own rationale, structure, and defence mechanism, which provide the mean to continue in spite of difficulties and deprivation. This slums culture affects virtually every facet of lives of most slum dwellers and activities or projects undertaken in the area.

### 3.7.3 Intervening Variable

**Social, spatial and economic factors:** Socio-economic handicaps and barriers can intervene affect the successful implementation of slum upgrading programmes. However, this may be difficult to measure or to see the nature of their influence in the programme

### 3.7.4 Moderating Variable

**Slum upgrading policies:** Policies are legal instruments passed by governments to guide the process of development. These policies can have either positive or negative effect on the implementation of projects or programmes. Several studies have noted that policies could have contributory or contingent effect on how projects and programmes are implemented.

### 3.7.5 Independent Variable

**Implementation of Slums upgrading programme:** The success of slums upgrading programme is highly dependent on numerous factors that could have both positive and negative causal effect. Factors mentioned above determine how successful slums upgrading programme could be of benefit to the intended beneficiaries.

**Table 3.1 Operation definition of Variables**

| Objectives | Research questions | IDV | IV | DV | Indicators | Measurement | Data collection | Tool of Analysis | Type of Analysis |
|---|---|---|---|---|---|---|---|---|---|
| Assess the effect of Urbanization on implementation of the Kibera slums upgrading programme | How does urbanization affect the implementation of the Kibera Slum Upgrading Programme | Urbanization | Social, Spatial and Economic factors | Slums Upgrading Programme | Population growth rate<br>Existence of essential infrastructure<br>rural urban migration | Ratio<br>Nominal | Literature review<br>Questionnaires<br>Interview guides | Percentage<br>Frequency<br>Frequency | Mean<br>Mode<br>Median |
| Identify and assess environmental factors that impede the Kibera Slum Upgrading Programme | What are the environmental factors that influence the implementation of the Kibera Slum project | Environmental Factors | Slums Upgrading Policies | Slum Upgrading Programme | land scape<br>Existence of Residential Structures<br>Dumping site | Nominal<br>Nominal<br>Nominal | Observation<br>Interview<br>Observation | Frequency<br>Frequency<br>Frequency | Mode<br>Mode<br>Mode |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Establish the effects of the cost of Kibera slums upgrading programme | How does upgrading costs affect the Kibera slums upgrading programme | Cost of slum upgrading | Slum Upgrading Policies | Slum Upgrading Programme | Infrastructure building materials Relocations | Nominal Nominal Nominal | Observation Interviews questionnaires | Frequency Frequency Frequency | Mode Mode |
| Evaluate the extent of Community participation in the Kibera | What is the extent of community participation in the Kibera slums programme | Community participation | Slum culture Slum upgrading Policies | Slum Upgrading Programme | Community organization | Nominal | Frequency Frequency | Questionnaire Literature review | Mode |
| Explore the extent to which security of land tenure affect the implementation of Kibera slums upgrading programme | How does security of land tenure affect the Kibera upgrading programme | Security of land tenure | Slum Upgrading Policies | Slum Upgrading Programme | Land ownership Land registration | Nominal Nominal | Frequency frequency | Questionnaire Questionnaire | Mode Mode |

## 3.8 Methods of Data Analysis

The data collected was carefully edited and coded, for easy analysis of the data electronically. Statistical package for social sciences (SPSS) was used to obtain descriptive statistics and findings summarised using frequency distribution tables, percentages, pie charts and graphs.

According to Kinnear and Coray (2000), in line with the research questions, the research design and nature of data being collected, various statistical tests are available for conducting the analysis further. It is in line with this that the tool a above was used to analyse the data for each of the questions in the current research.

## 3.9 Ethical Consideration

The ethical issues in regard to the research were taken into account. The researcher obtained authority letters from National council for science and technology before going to the field and the researcher undertook to take responsibility to protect the study units in the event of any consequences in line with the study. The research purpose was fully explained to the participants and a high level of confidentiality maintained at all times. The participants mainly residents of Soweto slums are expected to benefit from the study through their project leaderships.

## 3.10 Summary

This chapter outlines the research design and methodology of collecting and processing raw data, the target population, sampling procedure, reliability and validity of instruments, data collection procedures and methods of data analysis technique. The research design was descriptive survey of which questionnaires and interview schedules were used. The study was conducted in Kibera slums, Soweto east village where the Kibera slums upgrading programme is ongoing. The validity and reliability of the research instruments was ascertained through pilot testing by the researcher himself in Soweto east village. The analysis and presentation of data was done by the use of SPSS programme to obtain descriptive analysis.

# CHAPTER FOUR

# DATA ANALYSIS, PRESENTATION AND INTERPRETATION

## 4.1 Introduction

This chapter details the analysis, Interpretation and presentation of data. The main aim of this study was to investigate factors that influence the implementation of Kenya slums upgrading programme: A case of Kibera slums Nairobi County.

## 4.2 Descriptive Analysis

The study utilized both quantitative and qualitative analysis to get clear understanding of the findings of research. The collected data was analysed using descriptive statistics which entails frequency distribution and percentages. Descriptive analysis included Response rate, personal characteristics, sources of income, urbanization, housing, community participation, security of land tenure and environmental factors. Cross tabulation was used to assess the level of awareness on the slum upgrading programme across age and gender.

### 4.2.1 Response rate

The research targeted 1,200 households in the Soweto East Village of Kibera, both at the decanting site and the Soweto East zone C. A total of 120 questionnaires were administered to the respondents with 90 at the decanting site and 30 at Soweto East zone C. From this 106 households were reached giving a percentage response rate of 88.33 percent. According to Peil (1995), questionnaire return rate above 50% it is eligible for a credible analysis.

**Table 4.1 Questionnaire return rate**

| Area | Questionnaire issued | Questionnaire returned | Percentage return rate |
|---|---|---|---|
| Decanting site | 90 | 80 | 88 |
| Soweto zone c | 30 | 23 | 74 |
| Total | 120 | 103 | 88.33 |

### 4.2.2 The distribution of Respondent by gender

From the study, distribution of respondents by gender as shown on table 4.2

**Table 4.2 Distribution of respondents by gender**

| Gender | Frequencies | Percentage |
|---|---|---|
| Female | 60 | 58 |
| Male | 43 | 42 |
| Total | 103 | 100 |

The Table 4.2 illustrates that male respondents were 58 percent while female respondents were 42 percent. This however does not mean that there are more men in this area compared to women. This area still embraces patriarchal values greatly even on instances when both the male and female were present the household opted to use the man as the head and the spokesperson of the family. It can be assumed that majority of the female responded were either single mothers or housewives who had been left behind to take care of domestic chore when their spouses had gone to work.

### 4.2.3 The distribution of respondent by age

This subsection presents the data on distribution of respondents by age.

**Table 4. 3 Distribution of respondents by age**

| Age | Frequency | Percentage | Commulative percentage |
|---|---|---|---|
| Under 20 years | 12 | 11.3 | 11.3 |
| 20-29 years | 56 | 54.7 | 66 |
| 30-39 years | 24 | 23.6 | 89.6 |
| 40-49 years | 9 | 8.5 | 98.1 |
| Over 50 years | 2 | 1.9 | 100 |
| Total | 103 | | |

As illustrated in the Table 4.3 above, the majority of respondents were youths aged 20 years to 39 years. Those of age 20-29 constituted 54.7 percent and those who are age 30-39 were 23.6 percent, this on aggregate total of 78.3%.

Those below 20 years group are 11.3 percent while respondents of age 40-49 years' category and over 50 years constituted 8.5 percent and 1.9 percent respectively. This could be an indicator of high level of unemployment resulting to too many youths being jobless. On the positive side it could equally mean that the majority of beneficiaries of the slum upgrading programme were young people.

### 4.2.4 Level of education

The study findings on the level of education of respondents in the area of study focused on education level at primary school, secondary schools and tertiary level.

**Table 4. 4 Level of education of respondents**

| Level of education | Frequency | Percentage | Commulative percentage |
|---|---|---|---|
| Primary school | 34 | 33.0 | 33.0 |
| Secondary school | 46 | 44.3 | 77.3 |
| College certificate | 24 | 12.3 | 89.6 |
| College diploma | 13 | 5.7 | 95.3 |
| University degree | 4 | 3.8 | 99.1 |
| Others | 1 | 0.9 | 100 |
| **Total** | **103** | | |

The Table 4.4 shows that most people in Soweto East have basic elementary education. Those who have secondary school education are highest at 44.3 percent. Primary school education was 33.0%. Those with post secondary education are 12.3 percent for certificate level, 5.7 percent for diploma level, and 3.8 percent for university degree. These findings are similar to a study by Mitullah (2003) which showed that most household heads had primary level (61.3 per cent) and secondary level education (32.3 per cent). This follows the national trends which show that literacy levels increased during the 1970s and 80s; although the poor economic performance during the late 1980s and 1990s has reduced literacy levels since many families cannot afford education.

## 4.3 The culture of slum dwellers

This subsection represents data on the slum culture

### 4.3.1 Occupation status

The study findings sought to find out the about employement levels of the respondents as this has a bearing on their disposal income and ability to meet their daily living costs.

**Table 4. 5 Occupation status**

| Status | Frequency | Percentage |
|---|---|---|
| Employed | 31 | 29.8 |
| Self-Employed | 45 | 43.3 |
| Not-Employed | 28 | 26.9 |
| **Total** | 104 | 100 |

According to the findings in Table 4.5, those who are employed are 29.8 percent, those who are self employed constitute 43.3 percent while those who are unemployed stand at 26.9 percent of respondents. The percentage of those self employed and not employement commulatively totals 70.2%, this confirms the assertion that majority in slum areas are engaged in informal activities. Slums are homes to urban residents who earn comparatively low incomes and have limited assets. Livelihoods are earned through different forms of economic activities, which include employment as waiters, bar men and maids, drivers, watchmen, shop assistants, casual labourers in factories and construction sites, artisans, small business owners, and other income generating activities such as herbalists, entertainers, carriers of goods and any other assignment with money attached.

### 4.3.2 Nature of Self Employment

The Table 4.6 presents data on the nature of the self employment in the Soweto East Area. The predominant categories include services industry which consists of shoe mending, barbershop, hairdressing, car washing, taxi driving, mobile services, baby sitting, housing and collection of rent, cyber cafes; food industry which comprises

green grocers, hotels and cafes, water vendors, fish mongers, butcher's shop and bars, general trading goods which include chemist's shops, shop keeping, grain stores, hawking and peddling, charcoal sellers; environmental conservation workers who include plumbers, gabbage collectors, cleaners; structural works which include carpentry, welding, and construction works among others.

**Table 4.6 Nature of self employment**

| Industry type | Frequencies | Percentage |
|---|---|---|
| Services | 15 | 33.33 |
| Food | 10 | 22.22 |
| General goods | 9 | 20.0 |
| Environmental Conservation | 8 | 17.78 |
| Structural & Construction works | 3 | 6.67 |
| **Total** | 45 | 100 |

The results in the Table 4.6 indicate that the service industry was dominanted at 33.33 percent, followed by the food industry at 22.22 percent. The general goods trade was at 20 percent perhaps because of the capital involved to start a business. Those in the environment are 17.78 percent, a further probe to indicate whether they enjoyed the noble job indicated that 67 percent of those involved are there for lack of a better jobs to do. The 10 percent of the remainder took the challenge because others were unwilling. While the rest enjoyed their trade for money and environmental sanity. Those in the structural and construction work were 6.67 percent. This number looked smaller but on further probing close to 73 percent of housewifes alluded to their spouses working in construction sites away from the estate in the industrial area.

### 4.3.3 Income Levels

The income level is on a recurrent expenditure and usually fluctuates from time to time. This has been arrived at by estimating the cost of tangible expenses within the household that supports the day to day running of the budget. This includes food stuffs, utility bills of water,electricity,rent medical bills and expenditur for clothings.

**Table 4.7 Level of income**

| Amount | Frequency | Percentage | Commulative percentage |
|---|---|---|---|
| <Ksh 2,000 | 10 | 11.4 | 11.4 |
| Ksh. 2,001-5,000 | 22 | 25.0 | 36.4 |
| Ksh. 5,001-10,000 | 41 | 46.6 | 83 |
| >Ksh. 10001 | 15 | 17 | 100 |
| **Total** | 88 | 100 | |

The results presented on Table 4.7 show that the income bracket for most residents is Ksh. 5001-10,000 which supports a proportion of 46.6 percent. The Ksh 2001-5000 bracket and the less than 2000 bracket are 25 percent and 11.4 perent respectively. Giving a strong support to the notion that most slum dwellers live below Ksh. 120 poverty line per day. Those whose income go beyond Ksh. 10,000 are 17 percent and they mainly constitute the landlords who collect rent in lumpsum at the end of the month. Mitullah (2003) alludes that most slum dwellers earn very low incomes ranging between Ksh.88 and 28,000 with the majority earning between Kshs. 5,000 and 7,500. This findings are therefore confirms this to be the trend in slum areas.

**Table 4.8 Monthly Household Expenditure**

| Amount | Frequency | Percentage |
|---|---|---|
| <Ksh 2,000 | 17 | 16.8 |
| Ksh. 2,001-5,000 | 31 | 30.7 |
| Ksh. 5,001-10,000 | 44 | 43.6 |
| >Ksh. 10001 | 9 | 8.9 |
| **Total** | 101 | 100 |

Most of the residents of Soweto East Village spend average of Kshs.5001-10,000. The proportions of residents who spend this amount monthly were 43.6 percent. The expenditure is mainly on food and family expenditure items such as rent, medical care and school fees for children.

Clothing is rarely budgeted for and where it is bought it is usually on an impulse basis. 30.7 percent of the respondents also spend Kshs. 2001-5000 monthly.

Those who spend less than Kshs. 2000 constitute 16.8 %. This means that an accrued expenditure of less than Kshs. 10,000 is 91.1 percent. There for majority of slum dweller live below the poverty line and struggle to a ford basic household service.

### 4.4 Implementation of the Slum Upgrading Programme

#### 4.4.1 Awareness of Slum Upgrading Programme

The study sought to find out on the general awareness of the slum upgrading programme and whether it is influenced by age or gender.

**Table 4.9 The cross tabulation of awareness vs. Age**

| | | Awareness of slum upgrading | | |
|---|---|---|---|---|
| | | Yes | No | Total |
| Age | of under 20 years | 11 | 1 | 12 |
| Respondents | 20-29 years | 53 | 3 | 56 |
| | 30-39 years | 25 | 0 | 25 |
| | 40-49 years | 8 | 0 | 8 |
| | over 50 years | 2 | 0 | 2 |
| Total | | 99 | 4 | 103 |

**Table 4.10 Awareness of Slum Upgrade Vs Gender**

| | | Awareness of slum upgrading | | |
|---|---|---|---|---|
| | | Yes | No | Total |
| Gender of Respondent | Male | 57 | 2 | 59 |
| | Female | 42 | 2 | 44 |
| Total | | 99 | 4 | 103 |

### 4.4.3 Perception of Slum upgrading program

The study further sought to find out the perception of the respondents on the ongoing slum upgrading programme. The Table below show results on the influence of gender and age on the perception of the slum upgrading programme.

**Table 4.11 Perception of Slum Upgrade Vs Age**

| | | Perception Slum upgrade program | | | | |
|---|---|---|---|---|---|---|
| | | Good | Fair | Excellent | Very Good | Total |
| Age Respondents | of under 20 years | 3 | 4 | 3 | 1 | 11 |
| | 20-29 years | 24 | 17 | 12 | 3 | 56 |
| | 30-39 years | 9 | 4 | 11 | 0 | 24 |
| | 40-49 years | 3 | 4 | 1 | 1 | 9 |
| | over 50 years | 1 | 1 | 0 | 0 | 2 |
| Total | | 40 | 30 | 27 | 5 | 102 |

### 4.5 Urbanization and Housing

This section presents findings on urbanization, housing and population growth

#### 4.5.1 House Occupants

This subsection presents the data on the general livelihood of the residents within the current areas of residence and their initial areas of stay.

**Table 4.12 Place of stay before present play of stay**

| Place | Frequency | Percent (%) |
|---|---|---|
| Another Slum | 19 | 19 |
| Rural Areas | 27 | 27 |
| An up-market Estate | 2 | 2 |
| Soweto East Village | 52 | 52 |
| **Total** | 100 | 100 |

The results from the Table 4.12 indicate that 52 percent of the respondents used to stay in the other Soweto east village; this is explained in that they represent those where relocated to the decanting site on the slum upgrading programme. 19 percent were from other slums perhaps indicative that not all the beneficiaries of the project were from Soweto East village as intended by the programme.

Those who migrated from the rural areas constituted 27 percent they are those who have moved to towns on rural urban migration in search of jobs and other social amenities. There were 2% of respondents who were from upmarket estates and who too benefited from this programme confirming media reports Saturday standard (1/01//2011) that most beneficiaries of the programme are subletting their houses to people from upmarket estates for higher fees than that recommended by the government. The percentage could have been higher except that majority of the respondents interviewed did not want to talk about it.

### 4.5.2 House ownership

**Table 4.13 Ownership of present house of stay**

**Ownership of house of stay**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Owner occupied | 14 | 13.2 | 13.5 | 13.5 |
| | Private Rented | 37 | 34.9 | 35.6 | 49.0 |
| | Employer provided | 2 | 1.9 | 1.9 | 51.0 |
| | Government | 51 | 48.1 | 49.0 | 100.0 |
| | Total | 104 | 98.1 | 100.0 | |
| Missing | System | 2 | 1.9 | | |
| Total | | 106 | 100.0 | | |

The findings of the ownership of the house of stay as shown in the Table 4.13 indicate that government owned houses are 48.1 percent. This can be explained that most of the upgraded houses especially in the decanting site are government owned. The private rented houses are following in proportion by 35.6 percent. It must however be noted that this privately owned houses, most of them are not owner structures save for the un-upgraded area where temporary structure have been erected. This houses or rooms have either been sublet or rented illegally which contrary to the tenancy agreement by the government agents. Employer provided housing constituted 1.9 percent.

### 4.5.3 Amount paid on Rent Monthly

This section presents findings on the rent amounts paid by slum dwellers

**Table 4.14 Amount of money paid on rent monthly**

**Amount of Rent paid**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | <Ksh. 1000 | 12 | 11.3 | 13.6 | 13.6 |
| | ksh. 1000 | 26 | 24.5 | 29.5 | 43.2 |
| | Ksh. 1500 | 7 | 6.6 | 8.0 | 51.1 |
| | Ksh. 2000 | 25 | 23.6 | 28.4 | 79.5 |
| | Ksh. 2500 | 1 | .9 | 1.1 | 80.7 |
| | Ksh. 3000 | 17 | 16.0 | 19.3 | 100.0 |
| | Total | 88 | 83.0 | 100.0 | |
| Missing | System | 18 | 17.0 | | |
| Total | | 106 | 100.0 | | |

The findings as presented in Table 4.14 show that those who pay less than Ksh. 1000 constituted 13.6 percent; those who pay Ksh. 1000 are 29.5 percent; those who pay Ksh. 1500 are 8 percent; those paying Ksh. 2,500 are 1.1 percent; those paying Ksh. 2000 are 28.4 percent; and those paying Ksh. 3,000 are 19.3 percent. For the category paying less than Ksh. 1000, they mostly stay in temporary makeshifts and in very deplorable status but due to economy constraints they opt to hatch a living in this areas. The values of Ksh. 2000 and Ksh. 1000 are almost equivalent because the houses this people stay in area two bedroomed compartments and thus once a person is given a room, to sustain his life and payment of government rent he has to be a "landlord" within his premises. The actual costing of the government houses is Ksh. 3000 but this is sometimes out of reach to some tenants. The study did not find any one who paid more than the recommended Kshs 3000 though on agregate there are houses whose occupants collected close to Kshs 6,000 on rent from the many rooms they had sublet.

### 4.5.4 Room size and the number of people living under one household.

**Table 4.15 The number of rooms of stay**

**Number of Rooms**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Single | 47 | 44.3 | 46.5 | 46.5 |
| | Double | 32 | 30.2 | 31.7 | 78.2 |
| | Self contained | 22 | 20.8 | 21.8 | 100.0 |
| | Total | 101 | 95.3 | 100.0 | |
| Missing | System | 5 | 4.7 | | |
| Total | | 106 | 100.0 | | |

The results of the number of rooms per household is shown on Table 4.15 where the single rooms are inhabited by 46.5 percent , double rooms are inhabited by 31.7 percent and Self Contained rooms are inhabited by 21.8% of the families. This confirms the ealier findings that majority of the project beneficiaries have sublet their rooms as cummulatively those who are living in single and double rooms are 78.2% . wheres as those who fuly occupy the self contained rooms as intended by the project are only 21.8%

### 4.5.6 Sublet Rooms and Reasons for Subletting the Rooms

Interview with the SPIU secretariat indicated that majority of the beneficiaries of the slum upgrading project who have sublet their houses have done so to earn a living and raise money to pay for the high cost of living after foregoing the business that they use to run before moving to the government houses and others just want to foster good neighbourness for those yet to benefit from the housing scheme. This culture of communal living is reminiscent of how majority of the slums expect to live and share out resources and responsibilities.

### 4.6 Community Participation in Slum upgrading project

The study sought to find out what is the level of involvement of the community in slum upgrading programme and how it has empowered them to participate in similar projects in future.

### 4.6.1 Community participation in the Slum upgrading programme

**Table 4.16 Community participation in slums upgrading programme**

| | Frequency | Percentage (%) |
|---|---|---|
| Yes | 42 | 41.2 |
| No | 60 | 58.8 |
| **Total** | 102 | 100 |

According to the result presented on table 4.16, those who have been involved in Slum upgrading programme in one way or another are 41.2 percent while those who have not participated on the programme are 58.8 percent. Those who have participated indicate that they have done so through self help groups, youth groups and support from Maji Na Ufanisi and housing cooperatives. They have also attended chief's baraza where important communication on the slums upgrading programme is discussed. However 60% have not participated in the slums upgrading programme and this call for more awareness by the project implementers

### 4.6.2 Benefits of Involvement in Slum upgrading project

**Table 4.17 Benefits of involvement in slums upgrading programme**

| | Frequency | Percent (%) |
|---|---|---|
| Relocation to improved housing facilities which are less costly and highly secure | 42 | 91.3 |
| Guaranteed housing through cooperatives | 2 | 4.3 |
| Employment Creation | 2 | 4.3 |
| **Totals** | **48** | **100** |

The findings in Table 4.17 above shows that the Slum upgrading project has improved their lifestyles positively by relocating them from their former deplorable conditions and offering them modern house facilities at affordable prices with security. This benefit enjoyed an overwhelming proportion of 91.3 percent of respondents. There are

benefit such as employment creation and guaranteed housing through cooperatives which was 4.3 % each.

### 4.6.3 Organizations involved in the Kibera slums upgrading project

The study sought to find out the organizations mainly involved in the slums upgrading programme. The Table below 4.18 show that 61 percent of the respondents recognize government as more involved in the project through Kensup, 28 percent agree that UN-Habitat is a key player. However, it is noted that Community participation through local youth groups and Maji Na Ufanisi a nongovernmental organization is minimal at only 4% and 7% respectively. The youth group is mainly involved in environmental conservation while Maji Na Ufanisi is involved in water and sanitation. Though there are committees involved through KENSUP the respondents do not understand their role in the project and it can be assumed that the committees considered to be government institutions

| Organization | Frequency | Percentage (%) |
|---|---|---|
| Governmenet(KENSUP) | 63 | 61 |
| UN Habitat | 29 | 28 |
| Soweto Youth group | 4 | 4 |
| Maji Na Ufanisi | 7 | 7 |
| **Total** | 103 | 100 |

**Table 4.18 Organizations involved in Kibera slums upgrading programme**

## 4.7 Social Services

The study sought to assess the type of social amenities available and whether such amenities respond to the needs of the beneficiaries of the slum upgrading programme

### 4.7.1 State of the Infrastructure in the area

**Table 4.19 State of infrastructure**

| Rating of State | Excellent | Good | Average | Poor |
|---|---|---|---|---|
| Percentage | 5.99% | 38.2% | 49.0% | 6.6% |

The results shown on Table 4.19 illustrate that the state of infrastructure in this case roads is average at 49 percent. 38.2 % indicated that the roads are good, 6.6% of the respondents said the roads were poor and 5.99% were of the opinions that the roads are excellent.

This is a strong indication that the beneficiaries enjoy good infrastructures as a result of the upgrading programme.

### 4.7.2 Availability Amenities and facilities/ services

**Table 4.20 Availability of Amenities and facilities**

| Availabity of social Amenities | Frequencies | Percentage |
|---|---|---|
| Drainage sewers | 15 | 80.8 |
| Road lanes | 12 | 86.5 |
| Street Light | 8 | 61.2 |
| Water points | 20 | 98.1 |
| Play Ground | 5 | 35.6 |
| Social Halls | 2 | 50.5 |
| Health centres | 3 | 48.0 |
| Government schools | 5 | 67.6 |
| Garbage disposal pits | 4 | 57.3 |
| **Totals** | 74 | |

In Table 4.20 above, the results show that those who are satisfied with environmental amenities are 81 percent for drainage, water availability constitute 98 percent while garbage disposal is at 57.3 percent. Proper disposal of garbage and waste is still a challenge since the local government has not provided a dequate waste disposal areas.

Those who agreed to the accessibilty of paths and road are 87 percent and streetlighting constitute 61 percent. Electricity provision which has been a problem in the informal settlements constitute 98 percent. Lifestyle supporting amenities such as playground was at 35 percent, social halls in usable conditions had 51 percent while adequacy of government schools and health centres were at 48 percent and 68 percent respectively.

### 4.8 Security of Land Tenure

The study findings on land tenure in the area focused on understanding whether the community and residents of soweto east village own land and their right to ownership

#### 4.8.1 land ownership by the respondents in soweto East village

The table 4.8.2 presents the ownership of land by respondents anywhere in the country though with emphasis laid to Soweto East Village.

**Table 4.20 Land Ownership**

| Land Ownership | Frequency | Percentage (%) |
|---|---|---|
| YES | 40 | 32 |
| NO | 63 | 68 |
| **TOTAL** | 103 | |

The results of the Table 4.20 indicate that among the respondents those who own land are 32 percent while those who do not own land are 68 percent. This can be attributed to the fact that most informal settlements are found in government trust lands or local governmeet authority land reserved for public utility.

#### 4.8.3 How land was acquired

**Table 4. 21 Land Acquisitions**

| Land acquisition | Frequency | Percentage (%) |
|---|---|---|
| **Bought** | 15 | 38.2 |
| **Inherited** | 23 | 58.8 |
| **squarttered** | 2 | 2.9 |
| **TOTAL** | 40 | |

The results as shown in the Table 4.21 illustrate that 58.8 percent of the land owned by respondents was inherited, 38.2 percent bought their land while 2.9 percents are squatters of the land according to the respondents

### 4.8.4 Presence of legal papers

**Table 4.22 Presence of Legal Papers**

| Legal papers | Frequency | Percentage (%) |
|---|---|---|
| **Yes** | 24 | 61 |
| **No** | 14 | 36 |
| **Not sure** | 2 | 3 |
| **TOTAL** | 40 | |

Among those who own land 61 percent have conscented to having legal documents, 36 percent say they do not have any document on land ownership while 3 percent are not sure as shown in the table.

## 4.9 Environment and Sanitation

The study further sought to understand the kind of enviromental factors that influence implimentation of the slums upgrading programme. from interviews with the representatives of the SPIU, the committee adduced to the fact that poor sanitation and drainage systems were increasing the cost of the slums upgrading project due to there being many pitlatrines and broken sewage systems. The terrain of the land is slopy and this has made the cost higher due to costs in leveling of the land for suitability. Kibera area is constructed on rocks that hang on the cliffs, this rocks and boulder incraesing the costs of escavation and disposals of the soil from the sites. The area being an informal settlement there are many makeshift houses with narrow alleys and this has made it difficult to move construction materials easily to the site. Further high cost is incurred in clearance of makeshift houses. The commitee further stated that there are many waste disposl dumpsites within the village and this has made it difficult to upgrade the slums with costs escalating above the projected costs.

## 4.10 Summary

This chapter of the research project presented the findings on the demographic composition and structure of the Soweto East Area, the economic status of the respondents, awareness of the slum upgrading project, perception of the residents on the Slum upgrading project and factors that influenced the slums upgrading programme mainly, land tenure, community participation,Urbanization, and enviromental factors.

# CHAPTER FIVE

# SUMMARY OF FINDINGS, DISCUSION, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter will consist of summary of research findings, discussions, conclusions, recommendations and suggestions further studies.

## 5.2 Summary of Findings

This study was conducted to investigate the factors which influence the implementation of Kenya slums upgrading programme; a case of Kibera slums Nairobi County. The objective was achieved by investigating how the environmental factors, urbanization, community participation, cost of slums upgrading and security of land tenure influenced the Kenya slums upgrading programme in Kibera Soweto east village. The findings are summarised as follows;-

### 5.2.1 The slum Culture

From the findings those who are employed are 29.8 percent, those who are self employed constitute 43.3 percent while those who are unemployed stand at 26.9 percent of respondents. The percentage of those self employed and not employed cummulatively totals 70.2%, this confirms the assertion that majority in slum areas are engaged in informal activities. The nature of the self employment in the Soweto East Area predominantly include services industry which consists of shoe mending, barbershop, hairdressing, car washing, taxi driving, mobile services, baby sitting, housing and collection of rent, cyber cafes; food industry which comprises green grocers, hotels and cafes, water vendors, fish mongers, butcher's shop and bars; environmental conservation workers which include plumbers, gabbage collections, cleaners; structural works which include carpentry, welding, and construction works among others.

The income bracket for most residents is Kshs. 5001-10,000 which supports a proportion of 46.6 percent. The Kshs 2001-5000 bracket and the less than 2000 bracket are 25 percent and 11.4 percent respectively. Those whose incomes go beyond Kshs. 10,000 are 17 percent and they mainly constitute the landlords who collect rent in lump sum at the end of the month.

Most of the residents of Soweto East Village spend average of Ksh.5001-10,000. The proportions of residents who spend this amount monthly were 43.6 percent. The expenditure is mainly on food and family expenditure items such as rent, medical care and school fees for children. Clothing is rarely budgeted for and where it is bought it is usually on an impulse basis. 30.7 percent of the respondents also spend Kshs. 2001-5000 monthly. Those who spend less than Kshs. 2000 constitute 16.8 %, while individuals with income beyond Ksh. 10,000 are 17 percent and they are mainly landlords who collect rent in lumpsum at the end of the month.

### 5.2.2 Implementation of the Slum Upgrading Programme

The study found out that many young people are aware of the slums upgrading programme as compared the older people of age 50 years and above. In terms of gender, women are more aware of the slums upgrading programme than their male counter parts. According to submission by the SPIU, the people who have resisted and slowed the project are older people majority of who are actually structures owners in the slum area. Some also feel that their economic base is threatened and have used deplorable conditions as opportunities to make money.

### 5.2.3 Urbanization and Housing

The findings indicate that 52 percent of the respondents used to stay in the other Soweto east village; 19 percent were from other slums perhaps indicative that not all the beneficiaries of the project were from Soweto East village as intended by the programme. Those who migrated from the rural areas constituted 27 percent they are those who have moved to towns on rural urban migration in search of jobs and other social amenities. There were 2% of respondents who were from upmarket estates and who too benefited from this programme

The findings on ownership of the house of stay indicate that government owned houses are 48.1 percent. This can be explained that most of the upgraded houses especially in the decanting site are government owned. The private rented houses are 35.6 percent which are temporary structure erected by private individuals. This houses or rooms have either been sublet or rented illegally which contrary to the tenancy agreement by the government agents. Employer provided housing constituted 1.9 percent.

The findings further show that those who pay less than Ksh. 1000 constituted 13.6 percent; those who pay Ksh. 1000 are 29.5 percent; those who pay Ksh. 1500 are 8 percent; those paying Ksh. 2,500 are 1.1 percent; those paying Ksh. 2000 are 28.4 percent; and those paying Ksh. 3,000 are 19.3 percent. The results of the number of rooms per household indicate that single rooms are inhabited by 46.5 percent , double rooms are inhabited by 31.7 percent and Self Contained rooms are inhabited by 21.8% of the families.

**5.2.4 Community Participation**

According to study findings those who have been involved in Slum upgrading programme in one way or another are 41.2 percent while those who have not participated on the programme are 58.8 percent. Findings shows that the Slum upgrading project has improved peoples lifestyles positively by relocating them from their former deplorable conditions and offering them modern house facilities at affordable prices with security. This benefit enjoyed an overwhelming proportion of 91.3 percent of respondents. There are benefit such as employment creation and guaranteed housing through cooperatives which was 4.3 % each.

The organizations mainly involved in the slums upgrading programme are government at 61 percent through Kensup, 28 percent agree that UN-Habitat is a key player. However, it is noted that Community participation through local youth groups and Maji Na Ufanisi a nongovernmental organization is minimal at only 4% and 7% respectively.

### 5.2.5 Social Spatial and Economic factors

From the study findings the results show that those who are satisfied with a vailability of sanitation facilities are at 81 percent for drainage, water availability constitute 98 percent while garbage disposal is at 57.3 percent.

Proper disposal of garbage and waste is still a challenge since the local government has not provided a dequate waste disposal areas. Those who agreed to the accessibilty of paths and road are 87 percent and streetlighting constitute 61 percent. Electricity provision which has been a problem in the informal settlements constitute 98 percent. Lifestyle supporting amenities such as playground was at 35 percent, social halls in usable conditions had 51 percent while adequacy of government schools and health centres were at 48 percent and 68 percent respectively.

### 5.2.6 Security of land tenure

Indings *indicate* that among the respondents those who own land are 32 percent while those who do not own land are 68 percent. This can be attributed to the fact that most informal settlements are found in government trust lands or local governmeet authority land reserved for public utility. 58.8 percent of the land owned by respondents was inherited, 38.2 percent bought their land while 2.9 percents are squatters. Among those who own land 61 percent have conscented to having legal documents, 36 percent say they do not have any document on land ownership while 3 percent are not sure.

### 5.2.7 Environmental factors

The study further sought to understand the kind of enviromental factors that influence implimentation of the slums upgrading programme. from interviews with the representatives of the SPIU, the committee adduced to the fact that poor sanitation and drainage systems were increasing the cost of the slums upgrading project due to there being many pitlatrines and broken sewage systems. The terrain of the land is slopy and this has made the cost higher due to costs in leveling of the land for suitability. Kibera area is constructed on rocks that hang on the cliffs, this rocks and boulder incraesing the costs of escavation and disposals of the soil from the sites. The area being an informal settlement there are many makeshift houses with narrow alleys and this has made it difficult to move construction materials easily to the site. Further

high cost is incurred in clearance of makeshift houses. The commitee further stated that there are many waste disposl dumpsites within the village and this has made it difficult to upgrade the slums with costs escalating above the projected costs

## 5.3 Discussions

This study was conducted to investigate the factors which influence the implementation of Kenya slums upgrading programme; a case of Kibera slums Nairobi County. The following is the discussion of how the various factors influenced the implementation of the slums upgrading programme in Kibera.

### 5.3.1 Slum Culture

Majority of slum dwelllers work in the informal sector and have low incomes that cannot support their daily needs. The predominanat economic activities include services industry which consists of shoe mending, barbershop, hairdressing, car washing, taxi driving, mobile services, baby sitting, housing and collection of rent, cyber cafes; food industry which comprises green grocers, hotels and cafes, water vendors, fish mongers, butcher's shop and bars; environmental conservation workers which include plumbers, gabbage collections, cleaners; structural works which include carpentry, welding, and construction works among others. The income bracket for most residents is Kshs. 5001-10,000 while at the same time most of the residents of Soweto East Village spend average of Ksh.5001-10,000. Mitullah (2003) asserts that Slums are homes to urban residents who earn comparatively low incomes and have limited assets. Livelihoods are earned through different forms of economic activities, which include employment as waiters, bar men and maids, drivers, watchmen, shop assistants, casual labourers in factories and construction sites, artisans, small business owners, and other income generating activities such as herbalists, entertainers, carriers of goods and any other assignment with money attached and most households earning between Ksh.5,000 and 7,000. Their expenditure ranges between 1,500 Kshs. 12,000 with the majority spending less than Kshs. 5000 on food.

### 5.3.2 Implementation of the Slums Upgrading Programme

Majority of young people are aware of the slums upgrading programme as compared the older people of age 50 years and above. In terms of gender, women are more aware of the slums upgrading programme than their male counter parts. It is the young generation that are mainly living in slum areas since they migrate to shanties while in search of jobs and most slums are located to industrial areas where jobs are available therefore it is expected that majority of those to benefit from the programme will be young people and women who bear the burden of poverty and domestic problems.

### 5.3.3 Urbanization and Housing

The study findings indicate that due to high urban population, the house built to accommodate one family is shared a mong different households. This cast doubt on whether the programme will be able to improve the housing conditions and the lives of slum dwellers The right to adequate housing has been recognized as an important component of the right to an adequate standard of living ever since the adoption of the Universal Declaration on Human rights in 1948. But the vast majority of poor people in the urban settlements, have been unable to gain access to adequate housing largely owing to constant rural urban migration to the cities where they end up in the slum areas (Majale 2002)

### 5.3.4 Community Participation

The participation of the community is important in the slums upgrading programmes. This assures the projects of sustainability and maximum benefit. From this research paper it is evident that the involvement of community members is not adequate or the approach used by the project implementers does not give room for the community to fully participate in the project. The community recognise that the project has tremendously benefited them but consider it a government project and not theirs. Effective empowerment is an enabling process of imbuing all the planning, design and management processes, associated technical issues, assessing resources and constraints, negotiation and implementation with the support of a host of actors like CBOs, NGOs, government officials, politicians and often donor agencies (Moonasingha 2000).

### 5.3.5 Social Spatial and Economic factors

Availability of infrastructure and social amenities is key in ensuring that the slums upgrading programmes are successful. Schools, hospitals, and play grounds are not many a time available. This research paper indicated the availability of these facilities though none had been put up through the slums upgrading programme, majority were those owned by faith based organizations. A major constraint the urban poor face in seeking to improve their livelihoods is their limited access to the full range of municipal services: water supply, sanitation, drainage, garbage collection, access roads and pathways, street lighting, flood protection and public transport. Their predicament is made worse by the tendency for design and service standards to be unaffordable and not planned for incremental upgrading as poor communities become more able and willing to pay for services. Moreover, existing procedures, rules and forms of contract governing infrastructure procurement are a major impediment to the widespread involvement of poor communities in the implementation and management of their local infrastructure, and further mitigate against community participation and management in local environmental improvement (Majale 2002).

### 5.3.6 Security of land tenure

The findings indicate that majority of the slum dwellers own no land and the few who own land have no legal papers to prove ownership of the land. Promoting security of tenure is a prerequisite for sustainable improvement of housing and environmental conditions. Squatter settlements upgrading projects need to be carried out addressing tenure issues to prevent/reduce evictions. Governments should focus on regularization schemes in order to provide incentives to families to invest in their homes and communities. Promoting security of tenure can also support better functioning of rental

### 5.3.7 Environmental factors

Kibera is limited from expanding to the south and east by the Ngong River and Nairobi Dam, and to the north and west by the rail line to Kisumu. The terrain is hilly and sometimes steep, which can complicate the building process. Residential structures encroach on the riparian areas of the river. Residential and commercial dumping of solid waste, human waste, medical waste, and waste water cause perpetual degradation of the environment and water quality. Some pit latrines are

located inappropriately close to water sources, causing black water to seep into these sources, while inadequately maintained latrines negatively affect the general environment and community health. Mulcahy (2007) Environmental pollution is the biggest challenge of sustainable slums upgrading, since the latter depends on economic growth through industrialization. Industries are the biggest polluters of water, air and land in the cities that render valuable water and land resources unsuitable for human use, and pollute the urban atmosphere beyond safe limits

## 5.4 Conclusions

From the finding of the study, several conclusions were made which include;

**Urbanization and housing:** there is high rural urban migration and over population in slum areas leading to overcrowding of houses. This spill over has been experienced in the new project where houses meant for one family is shared by more than three households while others are occupied by tenants from upmarket estates. The Kenyan government's conceptualization of slum upgrading inserts benefits into a highly distorted market, preventing a balanced realization of the internationally recognized elements of the right to housing, and raising fears of displacement among slum residents. An analysis of the wider tenement market confirms these fears, and suggests that market distortions must be addressed in order for slum upgrading to succeed (Huchzermeyer, 2008).

**Slum culture and social spatial economic factors**: this complicate slums upgrading programmes and raise the costs of upgrading. Majority of slum dwellers are petty traders and rely on small business enterprises to raise income. The slum upgrading programme as conceptualised does not recognise the need to alongside create markets and business centres. This has led to slum dwellers making makeshift structures to accommodate their trades distorting the upgrading process.

**Community participation in the slums upgrading programmes:** This is low despite the immense benefits the majority of the slums dwellers attribute to the programme. A wareness campaigns targeting beneficiaries is low and structures created for the participation of the community are not responsive. Community

members are not adequately involved in the design, planning and implementation of the project. Successful community involvement requires support from the public sector such as provision of training, credit and technical assistance. The current strategy for human centred development for low-income communities does not follow the approach of public participation

**Security of land tenure** is not guaranteed and could impede the improvement of the slums to be better places where slum dwellers can enjoy their rights to good housing conditions. This was evident by the fact that there are already legal cases in court contesting on how the upgrading programme is being carried out.

**Environmental factors** impeded on the slums upgrading programme by raising the cost of the upgrading. Kibera is limited from expanding to the south and east by the Ngong River and Nairobi Dam, and to the north and west by the rail line to Kisumu. The terrain is hilly and sometimes steep, which can complicate the building process.

Residential structures encroach on the riparian areas of the river. Residential and commercial dumping of solid waste, human waste, medical waste, and waste water cause perpetual degradation of the environment and water quality

## 5.5 Recommendation

Recommendations are made based on the findings of the study:

I. The government should involve the beneficiaries of the project in all levels of project implementation from designing, planning and implementation. The best approach is to allow the beneficiaries to form a residential association that will represent the voice of the slum dwellers at all decision making levels.

II. The local government authority should review their urban planning policies to accommodate the expansion of slum dwellers and help provide infrastructures and social amenities along the upgrading programme.

III. The slums upgrading project team should implement the projects within the stipulate time periods to eliminate delays in project implementations that make residents disillusioned by the projects.

IV. The government and UN HABITAT should explore other models of improving housing conditions for the urban poor and not the high-rise self contained approach.

## 5.6 Suggestion for further studies

The findings of this study set ground for further study in the areas;-

I. Why have beneficiaries of the slums upgrading programme opted to sublet their houses for other tenants

II. Though this research paper looked at how environmental factors impact on the slums upgrading programme , a detailed study on how environmental factors impede on the slums upgrading programme is recommended

III. Further studies should be conducted in the other slums upgrading programmes in Mavoko, Kisumu and Mombasa where similar programmes are on going to help understand what factors influence the slums upgrading programmes in these areas.

### 5.7 Summary

This chapter outlines the summary of findings, discussions, conclusions and makes recommendation necessary for the various practitioners and identifies the areas of study that can be further explored by other researches interested in this field of study.

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# APPENDICES

## Appendix I: Letter of transmittal

**EDWINE OCHIENG**
**UNIVERSITY OF NAIROBI**
**P.O. BOX 30197**
**NAIROBI**

**RE: LETTER OF TRANSMITTAL OF DATA COLLECTION INSTRUMENTS**

This is to inform you that I am undertaking a research study leading to Masters of Art in Project Planning and Management with the University of Nairobi. The study focuses on coping with impediments facing the implementation of slums upgrading programme; a case of Kibera slums upgrading project in Nairobi County Kenya.

When the study is completed, the findings will enable development practioners in slums upgrading programme to design models that benefit the poor and slum dwellers intended to benefit from such upgrading programme. Your input is therefore very important and will define the success of this study.

Attached please find a questionnaire that requires you to provide information by answering questions honestly and objectively. You are not required to record your name anywhere and the information provided will be treated with outmost confidentiality.

**EDWINE OCHIENG**

**RESEARCHER**

## Appendix II. Questionnaire for Soweto East Residents

**QUESTIONNAIRE QUESTIONS**

Please respond to each of the item by either putting a tick of ☐ ✓ next to the response applicable, or as you deem necessary.

**SECTION I: BACKGROUND INNFORMATION**

1. What is your Gender?

   Male ☐ Female ☐

2. What is your Age?

   Under 20 years ☐ 20 – 29 years ☐ 30 – 39 years ☐

   40 – 49 years ☐ over 50 years ☐

3. What are your highest Academic qualifications?

   Primary level ☐ Secondary 'O' level ☐

   Certificate level ☐ Diploma level ☐

   University Degree ☐

   Others ☐

   Specify.....

4. How long have you lived in this area?

   Below six months ☐ 1 year ☐ 2 years ☐ 5 years ☐

   10 years ☐ 20years ☐

## A. Source of income

5. What is your occupation?

   Employed ☐ Self Employed ☐ Not employed ☐

6. If self employed what is the nature of business

   .....

7. If employed where

.....

8. What is the level of your monthly income?

Below Ksh. 2000 ☐ Kshs. 2001 – 5000 ☐

Kshs. 5000 – 10,000 ☐ above Kshs. 10,000 ☐

9. What is your Monthly Household expenditure

Below Kshs. 2000 ☐ Kshs. 2001 – 5000 ☐

Kshs. 5000 – 10,000 ☐ above Kshs. 10,000 ☐

**SECTION II: SLUMS UPGRADING PROGRAMME**

10. Have you had of Kibera slums upgrading programme

Yes ☐ No ☐

9 If yes, are you a beneficiary of the project?

Yes ☐ No ☐

1. If No, would you wish to be a beneficiary of the project

Yes ☐ No ☐

12. Your reasons

.....

.....

.....

13. What is your perception on the slum upgrading programme?

Good ☐ Fair ☐ Excellent ☐ Very good ☐

## A. Housing condition

14. Where were you staying before you came to this area?

Another slum ☐ Rural Areas ☐

An upmarket Estate ☐ another village in Kibera ☐

15. Reasons for your coming to Soweto East

To work ☐ Having relatives ☐

Following spouse ☐ Looking for a house ☐

16. Ownership of the house you stay in?

- Owner occupied ☐
- Private rented ☐
- Employer provided ☐
- Government ☐

17. If rental how much is the rent per month?

Kshs.....

18. How many people live in your house?

5 ☐ 10 – 20 ☐ 20 – 30 ☐ 30 – 35 ☐

19. How many rooms does your house have?

Single ☐ Double ☐ Self contained ☐

20. If owner occupied, state the status of tenure

Free hold ☐ inheritance ☐

Household ☐ squatted ☐

21. Type of house

Permanent ☐ Non permanent ☐ free hold ☐

22. Do you sublet your house?

Yes ☐ No ☐

23. If yes what are your reasons for subdivision

.....

.....

.....

24. What rent amount are you paid?

Below Kshs. 2000 ☐

Kshs. 2001 – 5000 ☐

Kshs. 5000 – 10,000 ☐

Above Kshs. 10,000 ☐

25. How do you spend the income from the rent?

.....

.....

.....

26. Is the government aware you have sublet the house?

Yes ☐

No ☐

## B. Community participation in slum upgrading project

27. Are you anyway involved in the Kibera Slums upgrading programme

☐ Yes ☐ No

28. If yes, how.....

.....

29. What are some of the benefits of participating in slums upgrading project in your area?

.....

.....

.....

30. Do you think the slum upgrading projects has made a positive change in your area?

Yes ☐ No ☐

31. Name any organisation/group/institutions you are aware of that carry out slum upgrading projects in your area?

1. .....
2. .....
3. .....

32. Please give suggestions on what you think should be done to encourage community participation in slums upgrading projects?

.....

.....

.....

## B. Access to Social services

36. What can you say is the state of infrastructure?

Good ☐ Average ☐ Poor ☐ Excellent ☐

37. What can you say about the availability of the following facilities/services?

| | | Exit | Do not Exist |
|---|---|---|---|
| - | Drainage | | |
| - | Road | | |
| - | Garbage disposal | | |
| - | Street lights | | |
| - | Water | | |
| - | Electricity | | |
| - | Play ground | | |
| - | Social halls | | |
| - | Government schools | | |
| - | Health centres | | |

## D. Land ownership

38. Do you own any piece of land?

Yes ☐ No ☐

39. What is the size of your plot?..... acres

40. How have you acquired it?

Bought ☐ inherited ☐ rented ☐ squatted ☐

41. Do you have any legal papers to show ownership?

Yes ☐ No ☐

42. If yes which

one.....

.....

### G. Environment and Sanitation

43. How do you dispose your waste?.....

.....

.....

44. Who is responsible for waste management.....

.....

.....

45. What are the environmental challenges faced by the community.....

.....

.....

.....

**Appendix III: Interview Schedule for institution involved in slum upgrading programme**

1. Name of Institution.....

2. Position of respondent.....

3. What are the mandates of your organisation in the SUV programme?

   .....

   .....

   .....

   .....

   .....

4. What achievements has your organisation made in improving housing conditions in the slum areas?

   .....

   .....

   .....

5. How do the residents participate in your programmes?

   .....

   .....

   .....

6. What challenges have you faced in the implementation of the projects?

   .....

   .....

   .....

   .....

7. How does your organization respond to these challenges?

   .....

   .....

   .....

   .....

8. What are the major costs incurred by your organization in the slums upgrading programme

.....

.....

.....

9. Are you pleased with the slums upgrading programme?

Yes ☐ No ☐

10. What are the benefits attributed for the slums?

.....

.....

.....

11. Name any other organisation/group/institutions you are aware of that carry out slum upgrading projects in your area?

1. .....
2. .....
3. .....
4. .....
5. .....

12. How do you rate the communities' participation in the slums upgrading project

Low ☐ Medium ☐ High ☐

13. What Environmental factors provide challenges to the slums upgrading programme

.....

.....

.....

.....

14. What legal instruments affect the slums up grading programme?

.....

.....

.....

15. Give suggestions on what can be done to improve the implementation of the Slums Upgrading Programme?

.....

.....