

**CRIME DIFFERENTIALS IN
METROPOLITAN SLUM AREAS:
AN ANALYSIS OF THE CITY OF NAIROBI
SLUMS, KENYA**

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THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY**

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DECLARATION

This thesis is my original work arrived through study, reading and research and has not been presented for a degree in any other University or Institution of Higher Learning for academic accreditation and all information from sources has been duly acknowledged

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DEDICATION

This work has been dedicated to my dearest and hard working mother Teresia, who has struggled to see me, become what I am today. I owe her a lot of gratitude, love and may God bless you Mum.

And in memory of my late father Peter Ngugi wa Gathute who worked hard in my early life but God called him to the heavenly beautified home.

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However, I wish to make it clear here that the persons, I have named above are not responsible for the views and errors in this work, I am single-handedly answerable for the substance, the style and the conclusions of this study.

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LIST OF ABBREVIATIONS AND ACRONYMS

AMCHUD	African Ministerial Conference on Housing and Urban Development
ANOVA	Analysis of Variance; a statistical technique that tests whether there is a significant difference between more than two groups of data
CAO	Child Aid Organisation
CBD	Central Business District
ERCSWEC	Economic Recovery Strategy Reduction for Wealth and Employment creation
FGD	Focus Group Discussion
GIA	Gallup International Association
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
KPSR	Kenya's Poverty Strategy Reduction
KSUP	Korogocho Slum Upgrading Programme
NPCP	National Population and Census Report

OCPD	Officer Commanding Police Division
PPPS	Probability Proportional to Population Size
PSU	Primary Sampling Units
SPSS	Statistical Package for Social Science
SRSI	Steadman Research Services International
UNDG	United Nations Inter-Agency Development Group

ABSTRACT

Crime Differentials in Metropolitan Slum Areas: An Analysis of the City of Nairobi Slums, Kenya

This research provides an in-depth investigation into the problem of crime in Kenya's capital city with specific reference to slums which are the epicentre of urban poverty. The overall objective of this study was to seek explanations of crime differentials in Nairobi slum areas, with a view of suggesting crime prevention strategies. The four major Nairobi slums considered for this study include Kibera, Mathare, Korogocho and Mukuru. Whilst acknowledging the wider origins of crime differentials, very little has been focused on those that affect the urban poor. The present study attempts to fill this gap by doing a crime related study in the Nairobi slums. The major objectives guiding this study are: to identify and compare the types and causes of crime between the four slum areas in the City of Nairobi, to compare crime victimization within different demographic characteristics of Nairobi's slum residents, to assess the awareness, attitudes and perceptions of safety as experienced by residents in the studied slum areas of Nairobi and to investigate crime mitigation strategies currently employed in the slum areas of Nairobi. The major theories considered were: Differential association theory by Edwin Sutherland, which by the findings from this study have shown that youth unemployment is one of the major causes of crime. Social Disorganization theory by Clifford Shaw and Henry McKay which argues that slums where residents had more social organization showed that they had lower rates of crime. Anomie theory by Emile Durkheim makes a contribution to this study that there is a possibility that the different slums have different structural patterns that would regulate behaviour such as crime. The study employed both quantitative and qualitative methods of data collection. The questionnaires and interview schedules for Focus Group Discussions (FGDs) and Key Informant Interviews were they key study instruments. For the quantitative part, a stratified random sample size of 660 respondents was used and was limited to persons aged 18 years and above. Four FGDs were done, one in each of the slums. The interviews were done between March and June 2007. The major findings of this study were that, even though structurally the four slums surveyed are socio-demographically homogenous, the study confirms crime-related inter-slum heterogeneity. The study reveals the existence of huge differences in the nature and typology of crime; victimization and vulnerability to crime profiles; safety perceptions and crime prevention between the slums. The occurrence and prevalence of specific crime types is different between the slums. Again, vulnerability to crime as revealed by the findings from this study shows that those likely to be affected by any type of crime differ between the slums. In terms of prioritizing the most effective crime prevention strategies this study shows that what is effective in one slum might not necessarily work in another. The conclusions from the study are that slums have similar socio-demographic characteristics but have varied levels and intensities of crime. This leads to a differentiation in safety perceptions and the choice of crime prevention strategies in the slum areas. Therefore a key recommendation is that crime prevention should be done in two levels. First, at a general level, where crime prevention is generic to all the slum areas. The second level would include slum specific strategies that would be championed by the slum community itself.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Crime has become one of the major challenges affecting countries of the world today. Many of the crime incidents have been reported mainly in the urban areas as opposed to the rural areas [UN-HABITAT, 2003A: 17, Mushanga, 1974:16]. The world is becoming increasingly urban. The implications are that more poor people are living and will live in urban areas than ever before. In 1900 only 14% of the world's population lived in cities. By 2001, an estimated 47.7% of the world's population was urban (United Nations Population Division, 2002). It was estimated that in 2001, 924 million people, or 31.6% of the world's total urban population, lived in slums. In the next 30 years, this figure is likely to rise. It is expected that this figure will rise unless drastic measures are taken. (UN-HABITAT 2003a:8).

The impact of the increase in population on the Africa continent has had a disastrous implication concerning crime and other social problems [Clinard, 1973:130]. The study of crime in urban areas and metropolitan cities should be done within the context of the population increase. The majority of rural to urban migrants are young people [Kibuka, 1979:20]. Therefore crime in the city is mainly attributed to the young people who have no employment and

come from the slum areas. Clifford (1974:16) observes that, the problem of young people and crime is of importance and there is a need to address the same by acknowledging the role the urban youth play in the rate of crime with a view to devise sustainable solution.

1.1.1 Urban–Slum formation linkages and its association to crime

The effect of urbanization as a major source for unplanned slum development has been variously studied. For example, a panel contribution to the paper PERN Cybers-seminar on Urban Spatial Expansion by Kwasi Nsiah-Gyabaah (2003:89) explains that even though urbanization is an agent of development, the growth rate of urban populations may cause resource stress if sustainable solutions are not found to cater for the growing population.

According to the UN-HABITAT (2003a:17) urbanization has played a big part in the creation of slums which attracts a huge number of rural residents who moves mostly due to economic reasons. However due to this migration the demand for livelihood amenities has outdone the supply.

As an example, the UN-HABITAT (2003a:17) “Challenge of Slums” is dedicated to the relationship between urbanization and slum formation. As such, income inequality, lack of economic growth and in-migration causes poverty; this includes lack of affordable housing, which results in formation of slums. Therefore, due to all the forces that lead to the creation of the slums, they create an environment that is conducive for breeding criminal activities.

1.1.2 Crime and Urbanization

One of the major problems affecting cities of the world is crime (UN-HABITAT 2003a:8). At the global level, crime incidence is high in the urban areas compared to rural areas. In Africa, crime takes different patterns and trends. According to the Institute of Security Studies, crime in South Africa (2004) and especially in the city of Johannesburg is rising. The same Institute of Security Studies (2004) provides a description of crime in different parts of Africa. The common denominator is that crime is increasing and especially in urban environments.

In East Africa, the crime scenario is slightly different and has a spatial differentiation component. In Tanzania, for example, it has been noted that Dar-es-Salaam has a slightly different crime typology compared to the South and West African cities according to Institute of Security Studies (2004).

In Kenya, crime is not different from the other parts of Africa and according to Starvrou (2002:108). The author asserts that crime levels in Nairobi resemble those in Johannesburg and Dar-es-Salaam.

From the above observations, incidence of crime has been shown to be highly associated with urban environments as opposed to the rural ones. This trend has not only been experienced in developed countries but also in the developing countries. This notion has been supported by Clinard (1973; 101).

1.1.3 Crime differentials in slums

Slums are areas of deprivation of basic needs such as adequate shelter, sanitation and security of tenure and this is consistent across many different slums. Based on these similarities, it is expected that the level of crime would be similar across the different slums as well. However, from the literature, there are divergent views.

Slum life has been associated with relatively high incidence of crime. However according to the UN-Habitat report on “the Challenge of Slums”; Global report on human settlement, it is argued that (2003a:18) the notion of high crime in slum areas is not always universal. There are urban environments that have low crime incidents even though these environments are typically slum areas.

Although there exist some literature on this, there is lack of a proper explanation and justification of these crime differentials between slums with homogenous characteristics such as uncontrolled settlements, lack of sanitation, lack of adequate clean water, poor living standards and poverty.

According to preliminary interviews by the researcher, the phenomenon of differential crime patterns between different slums was observed. These interviews were administered to two divisional police heads, namely in Kilimani and Makadara respectively. They unanimously agreed that reported crime is more rampant in slum areas as compared to other upmarket residential estates. However some slum areas do not experience as much crime as others. Initial pilot survey results confirmed these assertions.

The question is what could be the explanations and implications of such variability in crime in different slum areas of Nairobi? This study sought to answer this question.

1.2 STATEMENT OF THE PROBLEM

Crime hurts the wider society in many different ways. Generally speaking crime holistically affects all spheres of life. Crime erodes social cohesion and eventually leads to social instability. It violates the rights of individuals and to a large extent compromises national security. Additionally, crime also affects economic sphere of life. It hurts both foreign and local investments.

While we know that crime would almost affect anyone, we also know that it would differ in degree and magnitude between different groups of people. Studies have been done on how crime affects different human societies; however, the proceedings of these studies cannot always be generalized across all societies. There is need to have studies that target particular groups of interest. Of particular interest is the implication of crime among the urban poor.

A lot of literature has been published about crime in general, however very little is known about crime among the urban poor. The question is, why is the urban poor such a key segment of the population that should be investigated? As mentioned earlier, there is an exponential growth of urban population majority of who end up living in urban slums and other informal settlements. It

can be argued in as much as there are people who are increasingly living in the urban slums; these residents still have a right to safety and protection.

To develop this thesis further, it may be construed that crime tendencies should be similar across all the slums areas. Slums are well known to be homogenous in terms of poor quality and low standards of living: such as lack of access to safe water, sanitation, security of tenure, durability of housing and insufficient living areas. (UN-Habitat: 2003a; 243) Therefore, since these levels of deprivation to essential services are associated with crime tendencies this begs the question whether crime levels are similar or different in all slums. Can or should be the urban poor be treated as block as far as crime issues are concerned or should they be evaluated differently to see whether this would warrant different intervention efforts? This study brings forward the notion of comparative crime assessments across different areas where the urban poor live.

Therefore there is a need to first understand the nature and typology of crime between the different slums. This would determine whether each slum suffers from similar or different crime profiles. Secondly, it would be vital to know who the victims are and who are more prone or are at a higher risk of being crime victims. Thirdly, amidst the different threats of crime, what attitudes towards safety do the slum residents have? Finally, it would be important if an assessment of the current crime prevention programs is made in a bid to come up with strategies to effectively reduce crime in the slum areas.

1.3 THE PURPOSE OF THE STUDY

The purpose of this study was to seek explanations of crime differentials in city slum areas, with a view of suggesting crime prevention strategies. This research was guided by the following objectives:

1.4 OBJECTIVES

1. To identify and compare the types and causes of crime between the four slum areas in the City of Nairobi.
2. To compare crime victimization within different demographic characteristics of Nairobi's slum residents.
3. To assess the awareness, attitudes and perceptions of safety as experienced by residents in the studied slum areas of Nairobi.
4. To investigate crime mitigation strategies currently employed in the slum areas of Nairobi

1.5 RESEARCH QUESTIONS

Essentially this study was designed to answer the following key research questions.

1. What are the differential nature, typology and causes of crime between the different slums of the City of Nairobi?

2. How well can the victims of crime be profiled in terms of the demographic characteristics and vulnerability and how does this differ between the slums?
3. What are the degree of crime awareness, attitudes and perceptions of safety as experienced in the different slum areas of City of Nairobi?
4. What are the crime prevention and control needs of the City of Nairobi slum areas?

1.6 RESEARCH HYPOTHESES

In order to accomplish the study's objectives, the following hypotheses were formulated and later tested.

Hypothesis 1: The four different slums are structurally similar in their socio-economic and demographic profiles. Hypothesis 2: There is no variation in the nature and typology of crime across the four different slums selected for the study

Hypothesis 3: The probability of being victimised or being vulnerable to crime is similar across the different slums and across the different demographics profiles within those slums

Hypothesis 4: The perceptions of safety (safety attitudes) are similar across the four different slums

Hypothesis 5: Effective crime prevention strategies do not vary across the four different slum areas

1.7 SIGNIFICANCE OF THE STUDY

This study is important in the following ways.

First, the study should be particularly important for the community of Nairobi slums because after this study has been done effective crime prevention strategies can be devised and implemented. In addition, the information generated can also be applied in other slums environments in East Africa as far as sustainable developing crime prevention strategies are concerned.

Several theoretical constructs have been postulated in a bid to elucidate on slum crime. In addition, a few of these theories attempted to explain the reasons for such observed differences in crime patterns and in different slum areas. This study has attempted to validate some theoretical explanations. For example, the Social Disorganization theory seems to be the most explained theory. This means that slum areas with some level of social organization would definitely have lower slum crimes. Therefore the findings of this study should contribute to the body of knowledge about theories that explain slum crime differentials.

An integrated crime prevention strategy is vital for the slum residents. However, other previous crime prevention programmes have been done holistically with the agreed plans not fitting the specific requirements and

safety needs of the slum residents. This study should provide a framework for crime prevention in the slum areas.

1.8 DELIMITATIONS AND LIMITATIONS OF THE STUDY

This sub-section defines the study delimitations (the scope of study) of this research work. The following constitute the major delimitations that narrow the scope of this work.

The study was done in only four major slums in the City of Nairobi. These included Kibera, Korogocho, Mathare and Mukuru slums. The four slums were selected on the basis of their location, size and population density. Additionally from the police records, these four slums had the highest number of crimes reported.

The study sampled persons aged 18 years and above only due to the fact that there are prohibitive ethical considerations for interviewing persons below the age of 18 years and that those who are 18 years and above can give more informed responses on the subject of crime. The study expected that respondents in this age bracket have encountered or known someone who has been a victim of crime. Again, respondents below this age would be considered as children and ethically, there would be a requirement to obtain permission from their guardians/parents before interviewing them. This would have been a major drawback as far as the fieldwork process is concerned.

This study was proposed and executed within a maximum of three years. As such, this defines the time limit of the study.

The study targeted only 660 respondents who were selected by stratified random sampling procedures. The respondents were stratified based on their slum locality. With a sample this size, representative estimates were generated.

There were some challenges that were faced in the course of conducting this study. They are as follows.

Accessibility to the study area: due to overcrowding of the slums areas, there were difficulties in accessing some of the slum villages, which have actually the primary sampling points. The use of local interviewers who knew their way around the slum villages proved to be a useful strategy.

Household selection: since the settlements do not have solid planning, identifying sampling starting points and households was a challenge since no proper households' maps were readily available. To solve these problems, the local interviewers with specific knowledge of the village boundaries provided information on how to broadly geographically segment the villages. Sketch maps were drawn and starting points identified.

Poor respondent participation: Some respondents claimed to be too busy to spare time for the interviewees while others kept on giving new dates for appointment which they never honoured. In this case, the researcher made more household contacts to cover for any non-responses.

Respondent's request for incentives: Some slum dwellers required some incentive for them to participate in the study. No budget was set to give any incentives to the respondents. As such, these led to some non-responses and lack of cooperation from such respondents. The same strategy used in the above challenges was used. In this case, the researcher made more household contacts to cover for any non-responses.

Respondent hostility: During the interviews, some respondents were suspicious that the study was a ploy by the police to hunt for criminals. Some respondents were almost accosted by the slum dwellers. However, the interviewers were later advised to carry the authorization letter as a proof that the exercise was an academic undertaking.

1.9 ASSUMPTIONS OF THE STUDY

People in the City of Nairobi slums areas are knowledgeable on their own safety and community participation in controlling and reducing the crime in their slum.

Household based interviews will provide the best framework for interviewing selected respondents with a minimum possible bias

The government and other shareholders have already made tangible efforts to consciously control crime in the City of Nairobi slums areas.

All the respondents and the key informants will be aware of the importance of crime prevention participation in the slums areas

All the respondents will give truthful and precise information upon which the study findings will be based and to arrive at objective conclusions

1.10 THE THEORETICAL AND CONCEPTUAL FRAMEWORK

1.10.1 THE THEORETICAL FRAMEWORK

Allan Swingewood [2000:76] describes sociological theories as devoted to mapping, describing and explaining social relations as they actually are, as they actually occurred, rather than as they ought to be. A theory is a systematic collection of concepts and statements purporting to explain events or behaviours [Timasheff, 1957]. Theory is the axis around which research revolves. Theory establishes a cause and effect relationship between variables with the purpose of explaining and predicting phenomena and may indicate missing ideas, or links to the kind of data required [Kerlinger, 1964:30]

A significant feature of a theory is its ability to explain things for the researcher (or person) who may wish to use the theory in an applied setting (Glasser and Strauss, 1967). The core argument in crime theories is that, there are certain factors that lead to the increase or decrease of crime.

For the purposes of the achievement of the objectives of this study, the following theories were reviewed and seen to have relevance in explaining the dynamics of crimes in slums. The study used and evaluated the following theories:

1. The Differential association theory

2. The Durkheim's Anomie theory
3. The Social disorganization theory

1.10.1.1 The Differential Association Theory

According to Edwin Sutherland, Differential association is a learning theory, which focuses on the process by which individuals come to commit criminal acts. People learn to commit crime as result of contact with antisocial values, attitudes, and criminal behaviour patterns over time (Sutherland: 1970:118).

Since criminal behavior is learned, like all other behavior, within intimate personal groups in an interactive process of communication, then this means that criminality is not inherited biologically. Sutherland's theory offers a sociological explanation of why some people engage in crime and others do not. People commit crime because they have associated, socially, and culturally more with pro-criminal patterns than anti-criminal patterns.

Edwin Sutherland fully realizes that associating with criminals was not a sufficient condition for engaging in crime. People commit crime, because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law (Sutherland: 1970:127). Differential associations may vary in frequency, duration, priority and intensity. Young people growing up in a culturally deviant area will be subjected to a criminal way of life (lifestyles) and could learn deviant practices, pattern of behaviour and rules

Based on the differential association theory, it can be safely assumed that slum areas (when compared to other residential areas) are areas where there is a

higher incidence of antisocial values, criminal behaviour and law violations. This theory, therefore asserts that the general expectation is that slums will have more criminal tendencies than other areas.

1.10.1.2 The Durkheim's Anomie Theory

Emile Durkheim's, structural-functionalism, emphasizes the norms, which societies develop and instil to hold themselves together. Functionalism views society as a system that is a set of interconnected parts which together forms a whole. Society has needs which must be met if it is to continue to exist. These basic necessary conditions of existence are sometimes known as functional prerequisites of society (Durkheim: 1964:225). Emile Durkheim's views are that society is a set of interconnected parts which together form a whole. Durkheim emphasis the importance of viewing society as a whole and inter-relationships of society in term of the functions they perform.

Emile Durkheim defined the term *anomie* as a condition where social and/or moral norms are confused, unclear, or simply not present. Durkheim felt that this lack of norms or pre-accepted limits on behavior in a society led to deviant behavior. According to Durkheim, anomie is breakdown of social norms. It is a condition where norms no longer control the activities of members in society (Durkheim: 1950:129). Individuals cannot find their place in society without clear rules to guide them. He observed that social periods of disruption (for instance, economic depression) brought about greater anomie and higher rates of crime, suicide, and deviance. Durkheim felt that sudden change caused a

state of anomie. The system breaks down, either during a great prosperity or a great depression, anomie is the same result. (Giddens, 1972:127)

Crime actually produces social solidarity, rather than weakens it (Giddens, 1972:310). Durkheim also proposed that crime and deviance brought people in a society together. When a law is violated, especially within small communities, everyone talks about it. Meetings are sometimes held, articles are written for local news publications, and in general, a social community bristles with activity when a norm is broken. As is most often the case, a violation incites the non-violators (society as a whole) to cling together in opposition to the violation, reaffirming that society's bond and its' adherence to certain norms.

Emile Durkheim closely connects crime as that shocks the conscience collectively;

"...We must not say that an action shocks the conscience collectively because it is criminal, but rather that it is criminal because it shocks the conscience collectively. We do not condemn it because it is a crime, but it is a crime because we condemn it." (Giddens, 1972:123)

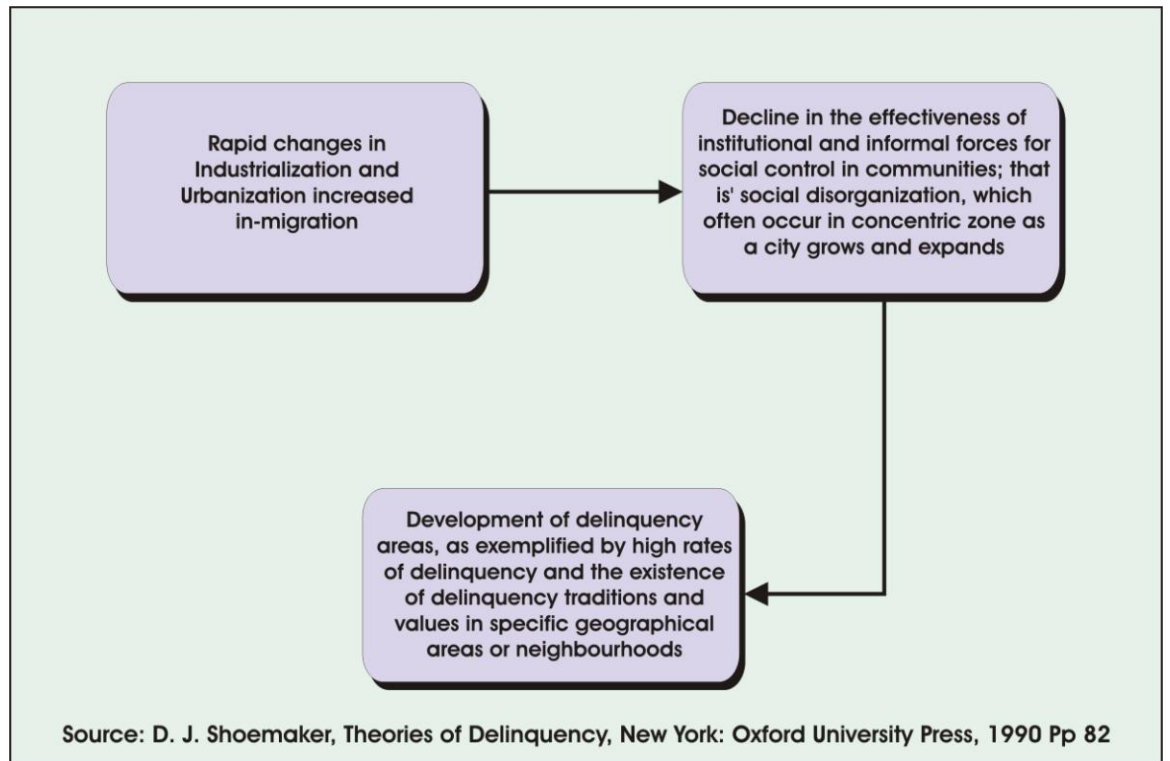
The contribution of this theory to this study therefore is the fact that there is a possibility that the different slums have different structural patterns that would regulate behaviour such as crime. Other theories have given reasons for this. For example areas with poor cultural integration structures are seen to be more prone to crime.

1.10.1.3 The Social Disorganization Theory

The concept of Social disorganization is mainly associated with the “Chicago School” of sociology and based on the work of Clifford Shaw and Henry McKay. Social disorganization theory focuses on the development of high crime areas in which there is a disintegration of conventional values caused by rapid industrialization, increased in-migration and urbanization. (Shaw and McKay:1942:129)

Crime is seen as a product of uneven development in society, with change and conflict which affects the behavior of those within it. Social organization exists when there is a high degree of internal attachment to individual and institutions in a community. The unity consists of agreement about goals that are worth striving for and how to behave and how to not behave. Both believed that social disorganization existed in city life.

Figure 1.1 The process of social disorganization



Clifford Shaw and Henry McKay concentrated their research on disorganized local areas, slums areas of high crime, prostitution and suicide. Crime rates were distributed throughout the city, delinquency occurred in the areas nearest to the business district. Consequently, their theoretical framework, social patterns of the urban environment produced social disorganization, which led to crime and deviance.

The disorganization theory helped to elucidate crime in City of Nairobi slums areas. People move to city from rural areas and this has increased in-migration and urbanization, resulting to formations of slums which are not socially organized. The result to social disorganization is the breakdown of effective social bonds, family and community associations, and social control in

communities. Crime rates would be higher in communities, that lacked traditional social controls and that contained some groups' organized for criminal behaviour.

Therefore it is expected that slum areas in City of Nairobi with some form of social organization will have lower crime rates.

1.10.2 THE CONCEPTUAL FRAMEWORK

According to Mutai (2000:104), a conceptual framework is derived from theory. It identifies the concepts included in the complex phenomenon and will show their relationships. Conceptual framework was constructed to show the hypothesized variables related to crime [figure 2:2]. The conceptual framework for this study begins with the recognition of the slum environment. As mentioned earlier on, the slum environment is unique. It is an environment of deprivation of basic amenities and poor living conditions. However, it is the mainstay of many urban immigrants in search of better livelihoods.

The slum environment provides a unique social structure that provides thriving conditions for crime. Due to poverty and unemployment most youth are motivated to engage in criminal activities as a means of survival. This creates a unique crime environment within the slum areas.

However, the conditions that encourage crime differ from one slum to the other meaning that the crime profile is different between different slum environments. This provides a challenge as far as crime prevention strategies

are concerned. Therefore in a bid to come up with an effective crime management strategy for the slums it is vital to analyse the slum and crime environment differentials.

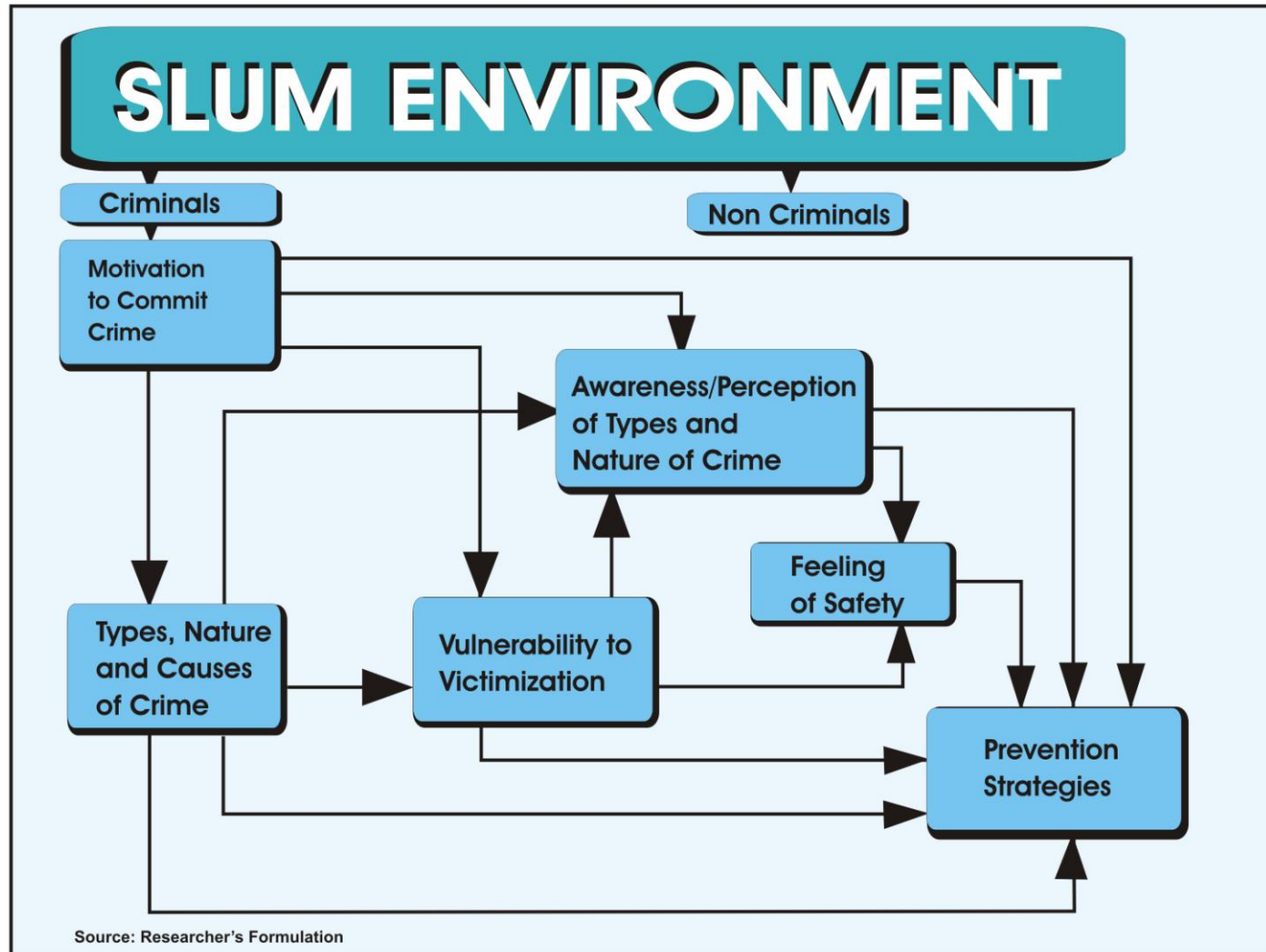
A framework is required to analyse these differentials. First it is vital to analyse the nature and typology of crime across the different slums. This provides an avenue to establish whether different slums require the same intervention efforts or not. Linked to this is the assessment of vulnerability to crime. Are people in different slums vulnerable to crime in the same way? Are there slums where one would be more vulnerable than the other?

Vulnerability to crime affects other facets as well. First vulnerability sensitivities to crime shape the safety perceptions and attitudes towards crime. It also affects general feeling of safety. Finally, understanding vulnerabilities provides one avenue for tailoring home grown strategies to curb crime.

Finally, in addressing crime issues, prevention strategies are important to consider. Prevention strategies are informed by inputs from the typology and nature of crime in the slum areas and understanding the underlying differences. These strategies also benefits from understanding crime vulnerabilities and feelings of safety.

Therefore this conceptual framework provides a holistic approach in looking at different aspects of crime in slum areas.

Figure 1.2 The Slum Environment



The main purpose for studying crime was not only to describe how crime manifests in different scenarios but an important feature of studying crime therefore is to use the findings in order to recommend actionable insights as to how crime could be managed in the City of Nairobi slums. A more common approach is to look at crime from a management point of view.

Crime should be understood based on the available theoretical (thematically) construct. These theories form a body of knowledge that puts into context all the variables and dynamics required to assess crime

Another starting point towards studying crime was to establish crime prevalence in a particular target population. In this case, slum crime should be understood in its own merit, first without comparing it to other areas. At this juncture, slum crime is treated independently.

The victims of crime also played an important role in understanding how the crime cycle moves [figure 2:2]. This means that the attitudes and awareness of the slum residents need to be understood before any further intervention is made. This coupled together with safety perceptions provides a basic framework for measuring the best ways to help prevent crime and get support from the residents as well.

Within the slum residents there are those who are mostly vulnerable to crime than others. It is vital that any intervention takes care of this fact. A demographic analysis of those who are mostly affected by crime produces

further insights on how special groups of people can be targeted towards proper crime prevention.

Once everything about crime typology, causes, residents' attitudes, awareness and perceptions of crime was evaluated, the existing crime prevention strategies can then be evaluated in the light of current perceptions. It is only when this has been done that an integrated crime management scheme can be launched.

1.11 OPERATIONAL DEFINITIONS OF TERMS

Arson: The crime of maliciously, voluntarily, and willfully setting fire to the property another person's property.

Assault: The act or an instance of unlawfully threatening or attempting to injure another person

Attitude: It is a settled opinion, way of thinking. Prediction to act favourably/unfavourably towards an event, a person, or a thing.

Awareness: Having knowledge and being well informed of the situation.

Burglary: Is a crime the essence of which is entry into a building for the purposes of committing an offence

Carjacking: A crime of stealing a motor vehicle when the vehicle is occupied

Crime: a violation of a norm that is codified in a law and is backed by the power and authority of the state.

Crime differential: The difference in crime-related statistics between the different slum environments.

Crime typology: the different types of crime manifested in a particular locality.

Fear of crime: Refers to the fear of being a victim of crime as opposed to the actual probability of being a victim of crime

Household: A group of people living under the same roof lacking one or more of the following conditions: access to improved water; access to improved sanitation; sufficient living area which is not overcrowded; structural quality and security of tenure.

Kidnapping: Is the taking away of a person against the person's will, usually to hold the person in false imprisonment, a confinement without legal authority

Kish Grid: This is a system that ensures that the household member to be interviewed is selected entirely at random and has an equal chance of being interviewed. It thus avoids the possible bias that can be caused by interviewers interviewing only the most accessible household members.

Likert scale: is a series of statements in which the respondent is asked to indicate their degree of agreement with the statement. Likert scaling is a bipolar scaling method, measuring either positive or negative response to a statement.

Metropolitan area: Refers to an area that is a designated as a city and occupied by over 2.5 million inhabitants.

Mugging: Is a type of theft, in which the perpetrator (the mugger) accosts the victim in a public place, such as a sidewalk, street or parking lot, and demands money and/or valuables through the use of force or fear

Murder: Is the unlawful killing of a human person with malice aforethought

Perception: An interpretation or impression based on ones' understands of something. It is mental picture.

Pick pocketing: act of stealing money or property from pocket/bags of person when the victim is unaware

Probability: the likelihood that an event will occur at one time or another.

Property: Tangible things or commodity that may be owned, either temporary or permanent custody of a person.

Qualitative survey: A survey that seeks to collect information that would not later be tabulated into numbers, but rather analysed for its contents.

Quantitative survey: A survey that seeks to collect information that would later be tabulated into numbers, i.e. quantified in statistical terms.

Random selection: when every person in the population has an equal chance of being chosen as a respondent.

Reliability: Consistency of measurement. The degree to which an instrument measures the same way each time it is used under the same condition with the same subjects.

Robbery: The illegal act of taking or grabbing another person's property by force.

Robbery with violence: Unlawful taking of a person's valuable property by force with physical harm or threat of harm by use of weapons. In Kenya, robbery with violence is a capital offence.

Sample size: the total number of respondents that would be approached for inclusion into the survey.

Sampling frame: the setting used to select respondents.

Slum safety perception index: The levels of safety perception of the slum residents.

Slum: A slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services.

Theft: Is the illegal taking of another person's property without that person's freely-given consent.

Typology: The analysis of different crime types experienced in an area.

Validity: Accuracy of measurement. It is the degree to which an instrument measures that which it is supposed to be measured.

Victimization Survey: A survey that measures the extent of crime by interviewing individuals about their experiences as victims. The researcher will ask respondents to list and name acts that have been perpetrated against them.

Villages: these are components of greater slum; they call them *Vijiji*, a Swahili word meaning villages (for instance, Kibera slum comprise several vijiji – small slums).

Violence: an actual attempt of force by a person so as to inflict bodily harm to another person.

1.12 OUTLINE OF THE THESIS

The study is organised into five chapters.

Chapter One: The focus is on introduction, statement of research problem, study objective, research questions/hypothesis, significance of study, delimitations and limitations of study, study assumptions and theoretical and conceptual framework.

Chapter Two: The chapter deals with literature review, the issues of crime, nature and crime typology, person to person crime, person to person property and vulnerability of crime. The relevant empirical literature is examined from Kenya, Africa and the world.

This chapter has introduced the study by reviewing the various theories and the dynamics of crimes in slums. The theories have explained the major concepts and the applicability to crime in slum areas. The study used and evaluated the following theories: The Differential association theory, The Durkheim's Anomie theory, The Social disorganization theory, The Social conflict theory and The Feminist theory.

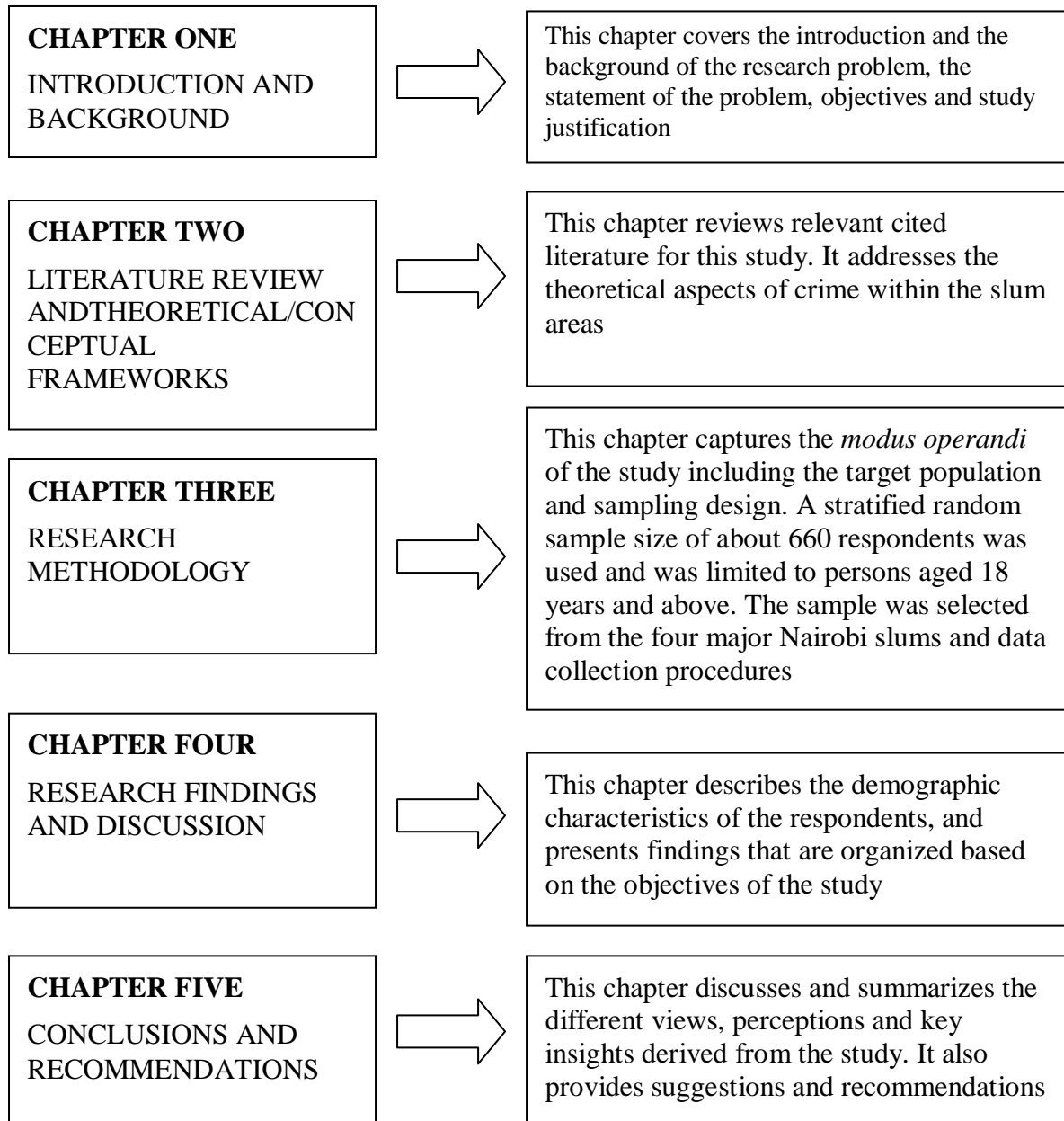
Chapter Three: The chapter focuses on methodology of the study. This includes the research design, population, research areas, sampling design and implementation, instruments used in the study and how the data was collected and analysed in details. a stratified random sample size of about 660 respondents was used and was limited to persons aged 18 years and above. The researcher collected the data, organised, classified and analysed the data. The data was presented and summarised by using tables, percentages, frequencies and graphs.

Chapter Four: dealt with research findings and analysis of the study, and the summary of the chapter.

Chapter Five: The chapter focused on recommendations, conclusion and finally suggested areas for further research. The study has appendices, which includes budget, interview schedules, questionnaire and references used in this study.

The next chapter is a review of the literature, definitions and significance of slums, definitions of crime, the nature and crime topology, the slum crimes reported in Police stations, and finally, crime locality and strategies to deal with slum crime.

1.13 GRAPHIC OVERVIEW OF THE CHAPTERS



CHAPTER TWO

LITERATURE REVIEW

2.1.1 INTRODUCTION

The objective of this chapter is to review the available literature about crime in the slum areas. This chapter aims at broadening the theoretical understanding of factors contributing to the differentiation of crime in different slums. It also identifies major gaps in knowledge as far as crimes in slum areas are concerned.

The chapter is organised as follows; the definition of crime and slum; sociology of crime; the nature and crime typology; vulnerable groups of crime; crime locality; recent empirical findings of crime in Kenya; strategies to deal with slum crime and the theoretical framework.

2.1.2 THE SLUM QUESTION: A HABITAT FOR THE URBAN POOR

Whenever an issue of public concern requires international intervention, especially by UN agencies, an operational definition of the issue is usually required. During UN-Habit at the meeting held in January 2002 in New York by the UN-Inter- agency Development Group (UNDG) and subsequent Expert Group Meeting held in Nairobi in November 2002 a more generic definition of slum was agreed upon as follows;

“A slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is not often recognized and addressed by the public authorities as an integral or equal part of the city.”

The slums are identified as such because they have a number of specific and unique problems affecting them. According to the UN-Habitat publication titled “*The Challenge of Slums*” in 2003, a comprehensive list of the major problems faced in the slums were underscored in great detail.

Some of the problems include:

Lacks of basic services - slum areas are known to be areas with a high degree of deprivation of basic services such as water, sanitation, electricity and proper roads.

Substandard housing and illegal residential structures – a check on the characteristics of the dwelling units in the slum areas indicates that due to poverty, the construction materials are cheap and do not last long.

High population density - slum areas are usually very crowded and a high number of people occupy a single square kilometre. For example, Kibera slum has 64,445 people per square kilometre.

Unhealthy living conditions - due to lack of sanitation services, most slum areas are affected by such issues such as open sewers, dumping sites and other polluted environments. Most of the houses are located in or very near the polluted environments. This not only degrades the living environment but makes the residents more prone to diseases such as cholera and malaria.

Insecure tenure - most slum dwellings are built on public land without proper land tenure. Most of the dwellers do not have proper documents sealing their possession of the land and their structures. This leads to threats and/or actual continuous evictions.

Poverty - slum dwellers result to slum residents because of severe economic hardships. Though it is not considered as a characteristic of slums it is seen to be a key factor in the proliferation of slum settlements. This in addition contributes to social exclusion of these areas as they are seen to be areas of recent immigrants from rural areas, internally displaces persons and ethnic minorities.

Crime - since slum areas are affected by severe economic hardships, this in itself provides an avenue for proliferation crime and criminal activities.

Five key components were therefore selected as key indicators of the slum settlements as follows.¹

1. Lack of access to safe water.
2. Lack of sanitation.
3. Lack of security of tenure.
4. Lack of durability of housing.

¹ UH-Habitat, 'The Challenge of Slums ' 2003a:243, Nairobi

5. Lack of sufficient living area and overcrowding.

In an effort to offer a better definition of the slum areas, it was seen vital to define the slum population in terms of the slum household and/or the slums dweller. A definition provided by UN-Habitat (2003:243) for a slum household is

“A slum household is a group of individuals living under the same roof that lack one or more of the five key indicators.”

2.1.3 OPERATIONALIZATION OF SLUM CRIME

Crime has variously been defined by different scholars; however no consensus has been reached for the adoption of a universal definition. Some of scholars who have defined crime are:

Mushanga (1985) who defined crime as:

“The act committed or omitted must be harmful either to the state, to an individual or both. The act committed or omitted must be specifically prohibited by the criminal law.”

Siegel (1995) provided an integrated definition of crime. According to him,

“Crime is a violation of societal rules of behaviour as interpreted and expressed by a criminal legal code created by people holding social and political power. Individuals who violate these rules are subject to sanctions by state authority, social stigma and loss of status”

On other hand, Sellin (1970:20) in an article “The Legal Definition of Crime and Criminals” describe crime as:

“Any act or omission prohibited by public law for the protection of the public and made punishable by state in a judicial proceeding in its own name”

To develop the concept further, it was deemed important to have a working definition with regard to the slum areas as well. Therefore for the purposes of this study crime will operationalise crime as

acts or prohibitions which are against the law but also have a cardinal characteristics that these acts are done within the confines of a known slum area.

2.1.4 SOCIOLOGY OF CRIME

According to Odegi-Awoundo (1993) there are two categories of crime: first, there is crime which is of deviant behaviour that is considered not to be a serious threat to group life and therefore tolerated. The second category of deviance involves behaviour that is perceived to threaten the group life and need to be punished. In modern society such behaviour are contraventions of the penal code of the state and are called crimes. Crimes are of two broad categories misdemeanours and felonies. All types of crime are punishable by law.

Crime can be viewed in terms of social construction. Sociologists have examined crime as a human construct. Its definition comes from individuals and social groups and involves a complex social and political process that extends over time. Individuals and groups create crime by making rules through two models, the consensus and conflict perspectives.

In consensus model, law making is a smooth accommodation of interests in a society, whether the society is composed of equals, rulers and the ruled so as to

produce a system of law and enforcement to which everybody basically subscribes.

According to this model, certain acts are deemed so threatening to the society's survival that they are designated as crimes. The society agrees on what is right and wrong. A mechanism of social control that settles disputes, which arise when individuals stray away from what is acceptable behaviour, is thus created.

Odegi (1993) reinforces the assumption that the ruling class is the one, which has the power to translate their interest into criminal law that protects their property. The ruling class in the society that has the power to shape the enforcement and administration of criminal law applies the criminal definitions. The only way to change the above notion is a change of superstructure to incorporate the interests of all others.

The powerful ruling classes interfere in all stages in which criminal definitions are created. Crime becomes a political behaviour and a criminal becomes a minority group unable to dominate the control of police power of the state. Law enforcement efforts and judicial activity are likely to increase when the interests of the powerful are threatened by opposition behaviour.

2.1.5 THE NATURE AND CRIME TYPOLOGY

Crime manifests itself in different ways in different situations and locations. Siegel (1995) describes crime typologies from the developed countries' point

of view, while Clinard and Abbott (1973) explain crime typologies from developing countries' point of view. According to Mushanga (1976) crime typologies are broadly classified into two categories. These classifications are typical of the crime scenarios portrayed in person to person violent crimes and economic crimes.

Siegel (1995) underscores a third broad category, which he terms as organizational criminality. However, out of this categorization, Clinard (1973:78), states that there are other crimes that can only be categorized under law contravention because they are not violent, property or organizational, related such include prostitution and illegal begging

According to Wolfgang (1969) some crime cultures deserve to be called sub-cultures of violence. This is due to members who see not just law breaking but assault and murder as fairly routine matters. The use of violence is seen as not crime but as necessary conduct and the person doing therefore do not have to deal with feeling of guilt about their aggression.

2.1.5.1 Person to Person Violent Crimes

As far as person to person violent crimes are concerned, Mushanga (1976:90) enumerates a number of criminal acts that include homicide, assault, rape, and robbery with violence. According to Mushanga, homicide is deliberately killing of one person by another. Such killing includes killing of first-degree murders, voluntary and involuntary manslaughter and attempted murder. He views assault on the other hand as complete attempt or persons to physically

harm, injure or inflicts grievous harm to another person(s). He also argues that assault is closely associated to homicide.

Rape on the other hand is that crimes that involve having carnal knowledge of another person through violence or threat of violence. Rape in itself is a form of assault. However this type of crime is insatiably underreported and unrecorded making it difficult to assess its gravity. Robbery with violence is another common crime in Kenyan cities. According to Mushanga (1976:127) this is vacuous crime, which takes place in the presence of the victim to obtain property or a thing of value from a person by use of force or threat of force.

According to Barnes & Ephross (1994;249), violent crimes are defined as being directed against persons, families, groups or organizations because of their racial, ethnic, religious or sexual identities, their sexual orientation or disability. Barnes and Ephross examine the nature of hate violence and the impact that these crimes have on their victims. They cite an increase in the amount of hate violence on urban slum dwellers although little research exists on the impact experienced by victims. They find similarities in the emotional and behavioural responses of victims of hate violence with those of personal crimes (assault and rape). Emotional responses include anger, fear of injury, sadness, powerlessness and an increased suspicion of other people.

2.1.5.2 Person to Person Property Crimes

According to Mushanga (1976:119) property crimes are those besides physically injuring the victim like burglary, theft and pocket picking, this is

when some economic harm is committed upon the victim. He enumerates two classes of person-to-person property crimes. These are: (a) Crime in which the criminals inflict economic harm in the actual presence of the victim. (b) Crime in which the criminal inflicts the economic harm either in the absence or unawareness of the victim.

The following are some of the person-to-person property crimes enumerated. According to Mushanga (1976:128), burglary is the criminal act where by offenders breaks into another person's dwelling at any time of the day with the intent of committing felony such as stealing and destruction of property. This may be perpetuated in the presence or absence of the victim. Petty theft is the other form of crime in this category. It is also referred to as larceny. This is usually the theft of petty goods and items. Grand larceny is the theft of goods that are of high inventory value and may cause the victim a great deal of economic harm.

2.1.6 VULNERABILITY TO CRIME

Studies done by Mushanga (1976; 119) in Kampala slums have shown that there exist different vulnerable groups as far as crime is concerned. For instance, rape victims tend to be females while young men usually experience mugging. Crimes differ in their report ability; that is some are more easily reported than others. For instance arson, under normal circumstance, is an offence that most people will not wish to conceal, but rape is not likely to be reported because of the shame that surrounds it and because women are, in the

majority cases raped by men who have had sex with them previously or who know them very well. It is very important to assess the demographic profile of crime victim in order to ascertain which types of groups are more vulnerable to which type of crime. That way, it is possible to recommend guidelines and other crime prevention interventions.

Several scholars have conducted studies that describe the manifest characteristics of crime victims in urban areas. Mushanga (1976:108) found out that in terms of gender, males are more susceptible to general crime of victimization than females. However, depending on the type of crime, there could be gender differences. Siegel (1995) indicated that males are about twice as likely to be victims of robbery and three times as likely to be assaulted.

Age is another factor that may be a cause of victimization. Siegel (1995) asserts that young people face a much greater risk of victimization than older persons do. For example, adolescents stay out at night more than older persons making the young people more susceptible to violent crimes. Mushanga (1976; 120) found out that majority of the victims was aged between 18-24 years old. Actually, 65 per cent of persons aged 18-24 years at one point in time were victims of violent crimes.

Social status also could possibly lead to high risk grouping in terms of crime victimizations. People who occupy the lowest of the rank in the society are more prone to crime victimization due to the fact that they live in crime prone

areas. However, in developing countries, those who occupy higher status locations are more prone to property crimes.

Mushanga (1976) also asserted that occupation status could possibly contribute to risk of crime victimization. He demonstrated that people who are employed earn an income and own property more than the unemployed. This could also be influenced by the fact that employed people usually occupy higher positions in the social rankings.

2.1.7 CRIME LOCALITY

According to Kibuka (1979:13-23), most rural young people are migrants to the urban centre. The fact that 45 percent of Africa's population is below fifteen years of age. The proportion of young persons aged 25 years and below was estimated to be 65.6 percent by the year 1990. These observations suggest that young people are likely to commit crime in urban areas more than their older counterparts. Clifford (1974:16) observed that the young people and crime should be taken seriously. He states:

“Crime in Africa particularly is an important problem of young people. There is a need to develop new ways of preventing and handling crime in Africa.”

From 1968 to 1977, Kariuki (1978) studied crime in Thika town and its environs over a period of 10 years. Okola (1996) also studied the crime patterns and trends in Mombasa town for 7 years, from 1985 to 1991. Like in the first scenario no special mention of crime in slums was observed.

According to Steadman Research services (2004) poll in crime, only up to 45% of urban crimes are reported. There is a general indication that crime is still a major problem in Kenya's towns. The City of Nairobi for instance, continues to experience high levels of carjacking, burglary, rape and robbery with violence.

In the City of Nairobi, crime has been widely studied. However the literature lacks an elaborate exposition of crime life in slum areas. Many initiatives have been put in place to aid in reducing crime rates and increase safety levels.

According to UN-Habitat, (1996),

“Urban violence erodes the social capital of the poor. Insecurity affects the poor more intensively, breaks down socio-cultural bonds and prevents social mobility, thus contributing to the development of urban ghettos and stigmatised neighbourhoods.”

According to Stavrou (2002:134), most of slum dwellers are not there by choice but due to lack of alternatives, be it affordability or availability of land space. It is this inadequate land space that will force the people living in slums to commit crime. Stavrou (2002:134) argues that,

“Crime does not happen spontaneously. It grows out of an unequal and exclusive society, and out of a lack of institutional and social control. An inadequate urban environment and exclusion encourage crime and violence. Moreover, the criminal justice system, including police, courts and prisons is poorly adapted to the rapidly changing urban environment and unable to respond to the concerns and needs of urban dwellers, particular the poor”.

This polarization generally concludes that there is a major variation between the incidences, nature, patterns and trends of crime between the urban-rural

scopes. A poll on crime done in Kenya by Steadman-Gallup actually gives evidence that there are crime differentials between urban and rural crimes.²

Steadman-Gallup carried the research to show the crime differential between rural-urban setup. The method used by Steadman-Gallup was sampling all the 8 provinces in Kenya for one week. However the poll was not enough to report the actual picture of what is happening. This study took three years to establish and explain the gaps in knowledge about crime differential in Nairobi.

2.1.8 EMPIRICAL FINDINGS OF CRIME IN KENYA

In October 2004, a study by Steadman Research Services International (SRSI) about crime found that 26% of the city residents have been subjected to some form of criminal attack. Criminals personally attacked 16% of urban and 11% of rural residents. 71% of the attacks were at night and 34% were at home. Referring to the recent incidents, crimes did occur 58% in urban and 42% in rural areas. The burglary and robbery with violence was experienced by 64% urban and 36% in rural resident. The overall security situation under the National Rainbow coalition (NARC) government was 46% for rural and 54% for urban.

The study by SRSI was done in the urban areas of Kenya. The majority of the City of Nairobi residents in excess of 70% are living in slums, according to a

² Steadman Research Services used survey methodology with a sample size of 2000 respondents distributed proportionately in all the provinces.

recent UN-Habitat report. However, this study did not emphasize anything on slums. The time frame was only one week.³

Nairobi slums represent a good case study of the crime phenomenon patterns and the plight of the urban poor. The City of Nairobi's current population of 3.5 million people is expected to be more than triple by 2015. The bulk of this growth can be traced to the in-migration of poor migrants from the rural hinterland, many of whom end up in marginalized slum communities in Nairobi city slums. Already, close to 70 percent of the city's population lives in slums or informal settlements, as officially referred to by the government of Kenya.⁴

2.1.9 STRATEGIES TO DEAL WITH SLUM CRIME

Several strategies are available in literature on how to deal with crime in general. Most of these strategies are applicable in other crime localities and are not necessarily specific to the slum areas though they have been variously mentioned by scholars such as Mushanga; [1976], Kibuka; [1979] and Muli, et. al; [1974].

Some of these strategies include vigilante groups these are recruited by neighbourhood residents and have been seen to be an effective way of combating crime especially in areas where police patrols are rare. These groups

³ The study time frame was from 2nd to 8th October 2004

⁴ Matrix Development Consultants 1993, page 60,

constitute members of the community who patrol their own neighbourhoods to deter and control any source of criminal activities.

Community policing -The basic foundation of community policing was the cooperation between the police and slum dwellers in combating crime. This was mainly based on the premise that the slum dwellers know who the criminals are and can give this information to the police for faster and efficient way of eradicating criminals who live within the slum community.

Police patrols - Regular police patrols are an effective way of reducing crime rates. However, slum areas are inaccessible, filthy and also dangerous making it difficult for extensive police patrols to be carried out.

Lighting - Recently slum lighting was introduced. This has been seen to effectively control crime in the slums.

2.1.10 SLUM CRIME REPORTED IN POLICE STATIONS.

This study will seek to establish the attempts made by the slum dwellers to reduce crime rates. Analysis of secondary information on actual crimes reported to the police was done. The researcher read carefully the records of six years [2001 - 2006] of the four police stations namely: Mathare, Makadara, Buruburu and Kilimani which serves the four major Nairobi slums areas.

Out of the 13,600 crimes reported in Nairobi in 2001, 900 were recorded in Kibera, 2,000 in Mukuru, 1,300 in Korogocho and 600 in Mathare slums. The rest of crimes were recorded in other areas of the city. Assault, robbery,

breaking, theft and murder dominated in that order in the period of study. Police reports also showed there were some cases of rape especially in Mukuru and Korogocho where in 2008 alone there were 46 cases and 65 respectively.

In 2002 some 12,100 crimes were reported in the city. The reduction was due to the electioneering period. Many youths were engaged in campaigns. Kibera recorded the lowest-800 and Mathare followed with 1,200 crimes. Mukuru had 1,200 while Korogocho reported 1,800.

In 2003, 13,580 crimes were reported with Korogocho leading with 2,000, Mukuru 1,600, Mathare 1,000 and Kibera 900. The rise of crime was as a result of the aftermath of the election year.

In 2004 some 13,426 crimes were recorded with the police. Out of these 1,000 were from Kibera, 2,000 from Mukuru, 1,600 from Korogocho and 800 from Mathare.

In 2005 12,300 crimes were reported with Kibera having the lowest number – 800, Mukuru 1,343, Korogocho 1,564 and Mathare 1,065.

In 2006, police had recorded 14,640 crimes up to December, and the number rose from previous years. Crimes in the slum areas are driven by the composition of the residents. For instant where there are many Muslims like Kibera and partly Korogocho crime is low. Kibera recorded the lowest - 1110 and Mathare followed with 1,320 crimes. Mukuru had 1,530 while Korogocho reported 1,684.

In conclusion, a lot has been published about crime in general. However, literature on crime in slum areas is rare. Additionally, whatever is available as far as crime in slum areas is concerned is either general or outdated. Literature on typology of crime and crime differentiation, crime prevention and safety perception is non-existent. As far as slums are concerned, concerted efforts have been dedicated to the realization of the Millennium Development Goals (MDGs) goal 7, target 11 which is “By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers”. However, the focal point of this goal does not give considerable weight to crime issues as it is giving other key indicators such as sanitation and security of tenure. This thesis will attempt to underscore the significance of the slum crime in the millennium development goals (MDGs).

2.2. SUMMARY

This chapter reviewed the relevant literature. The literature has shown that urbanization contributed to the formation of slums. Due to the slum poverty, the people are vulnerable to the crime. The discussion of different theories followed to elucidate the phenomena and contributed to the general understanding of crime in slums. The slum crime reported in Police Stations from the year 2001 to 2006, which serves the four major Nairobi slums areas, was discussed.

Finally, for the purpose of achieving the objectives of the study, the following theories were applied: The Differential association theory, The Durkheim’s

Anomie theory, The Social disorganization theory, The Social conflict theory and The Feminist theory.

The Conceptual framework was constructed to show the hypothesized variables related to the crime.

The next chapter examines the research methodology used in the study. It describes the study area, the target population, the research design, the sampling techniques, the pilot study methods of data collection as well as data analysis procedures and expected outcomes of the findings.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on research methods and elucidated the *modus operandi* which was followed during data collection and analysis. It includes research design, study site, population of the study, scope and sampling procedures, research instruments, data collection and analysis procedures. Basically a research design can be termed as the guide to how the research study was constructed and carried out (Kerlinger, 1986:279) while enumerating the logic and key steps of the study preparation. It is the logical and systematic planning of the study.

3.2 Research Design

To achieve the objectives of this study, a cross-sectional survey approach was used. The cross-sectional survey was the preferred method because of its advantages such as: its appeal to generalizability within a particular parameter, its ready acceptance of statistical data analysis methods and its economical and efficiency drawn from its data collection strategy and its effectiveness in collecting descriptive data.

Within the cross-sectional survey method, both quantitative and qualitative methods of data collection were used.

3.3 OPERATIONALIZATION OF VARIABLES

The researcher has identified the variables and labels them to use them in this study. This is to enable the study proceed well and faster. A variable is characteristic (factor) that has more than one value, either quantitative or qualitative. (Kerlinger, 1964:34)

3.3.1 Independent variables -

Demographic factors: Sex, marital status, amount of household income, degree of job satisfaction, age of respondent, duration of residence in the slum, level of commitment, degree of familiarity, degree of alienation, amount of loyalty and ethnicity

Socio-economic factors: level of education, occupation, types of work conditions, religious affiliation, level of stress, political party membership, attitude toward change, job satisfaction, and amount of total assets.

3.3.2 Dependent Variables -

The types of the crimes in the slums, these are person to person violent crimes person to person crimes and organised crimes. The cause of crime is defined in term of actual happening in the event of that particular crime (occurrence). For

this reason the variable is categorised into the category of person to person violent crime, economic crimes or organized crime

3.3.3 The units of analysis and of observation

According to Korhari (1985:78) the units of analysis is the general level of social phenomena that is the object of observation. Singleton et al (1988) describes the unit of analysis as the entity, which enables a researcher to seek facts to make generalizations.

Baker (1985) defines unit of analysis as social entities whose social characteristics are focus of the study. The primary units of analysis for this study were actual people or victims who had lived in the four slums sampled. This was reason why the first question was whether or not the person had even been living in slum or the victim of a crime. If anybody indicates that he/she had not been living the slum, he/she was purposively be excluded from the sample. The victim was sampled from four major slums in the city of Nairobi, namely Kibera, Mukuru, Mathare and Korogocho slums.

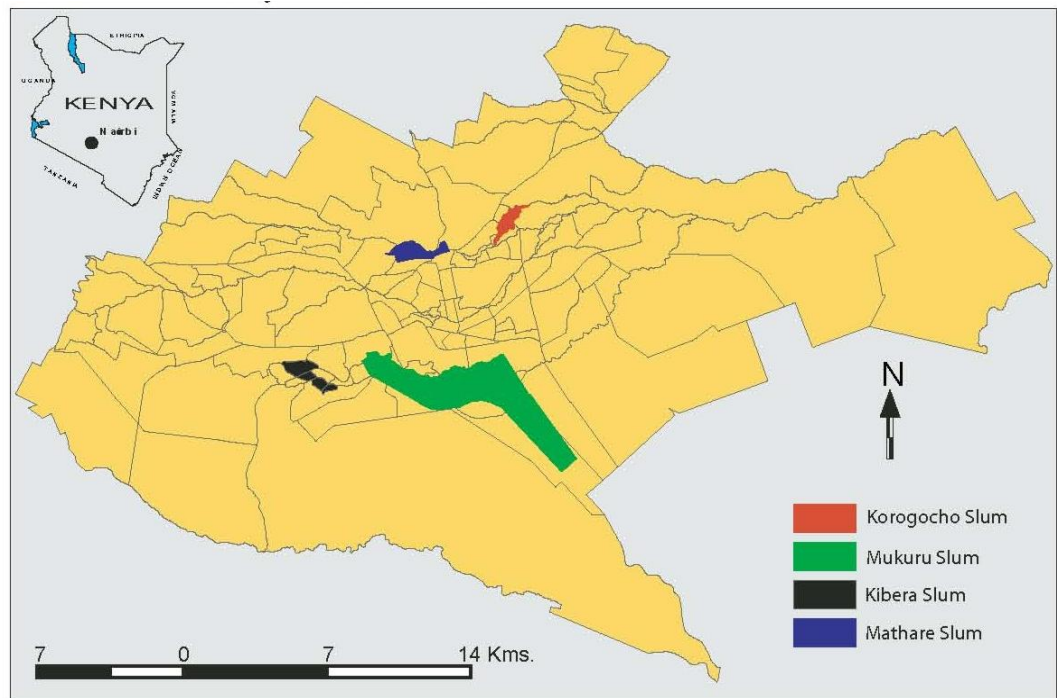
According to Mugenda at el (1999:17). a unit of observation is the subject, object or item from which we measure the characteristic or obtain the data required in the research study. In this study, the researcher used police and slum elders as the units of observation.

3.4 Study area

The locale of the study was the four major slum areas in the City of Nairobi, namely Kibera, Mukuru, Mathare and Korogocho slums. As mentioned in section 1.8 “*Scope of the study*”, the four slums were selected on the basis of their location, size population density and incidence of crimes reported to the police between 2001 and 2006.

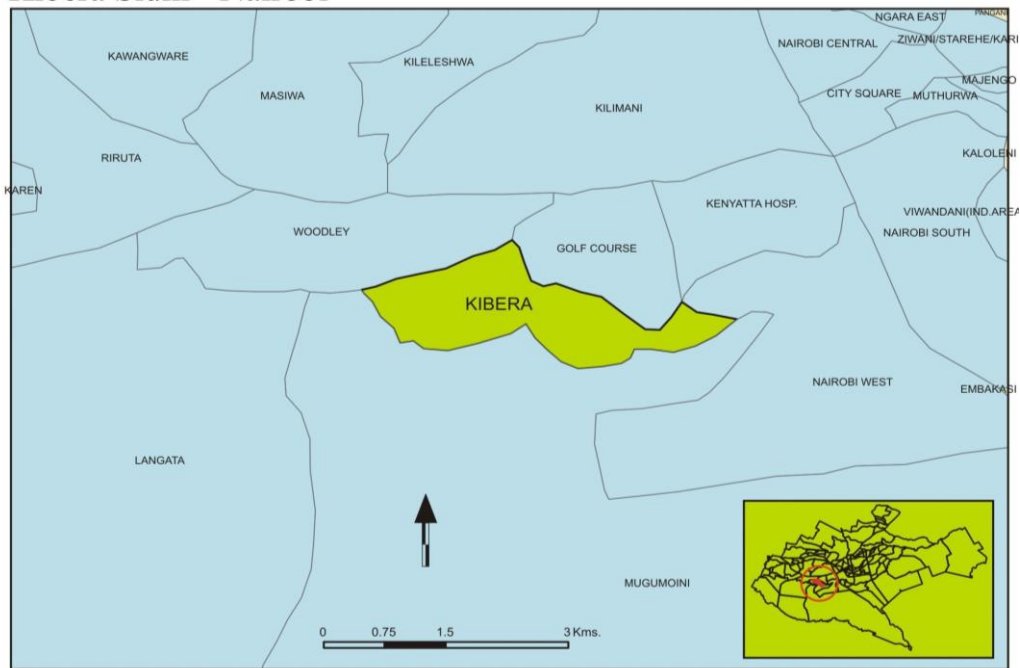
The following map shows that relative location of the slum areas in the city of Nairobi province.

Figure 3.1 Location of Study Area Nairobi



The following is an in-depth profile of each of the slum areas included in this study.

Figure 3.2. Kibera Slum

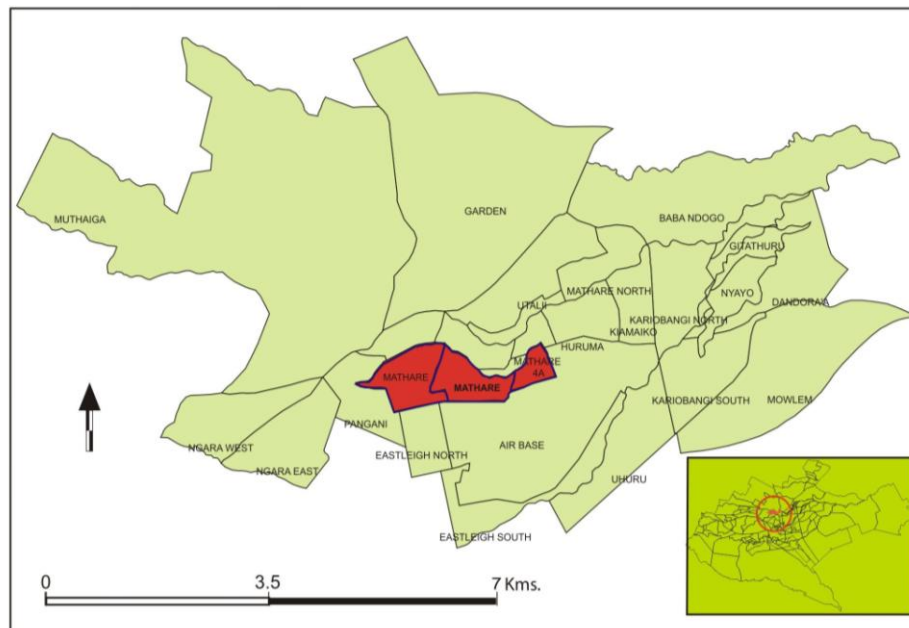


Kibera slum is roughly 5 kilometers, Southwest of the city centre and located at the following geographic coordinates, $1^{\circ} 19' 0''$ S, $36^{\circ} 47' 0''$ E. Kibera is the largest of Nairobi's slums, and the second largest urban slum in Africa, with an estimated population of between 600,000 and 1.2 million inhabitants (Wikipedia, 2009). The neighborhood is divided into a number of villages, including Kianda, Soweto, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Siranga/Undugu, Makina and Mashimoni. It has a population density of 2000 residents per hectare.

Kibera is heavily polluted by human refuse, garbage, soot, dust, and other wastes. The slum is contaminated with human and animal feces, thanks to the

open sewage system and the frequent use of "flying toilets". The lack of sanitation combined with poor nutrition among residents accounts for many illnesses and diseases.

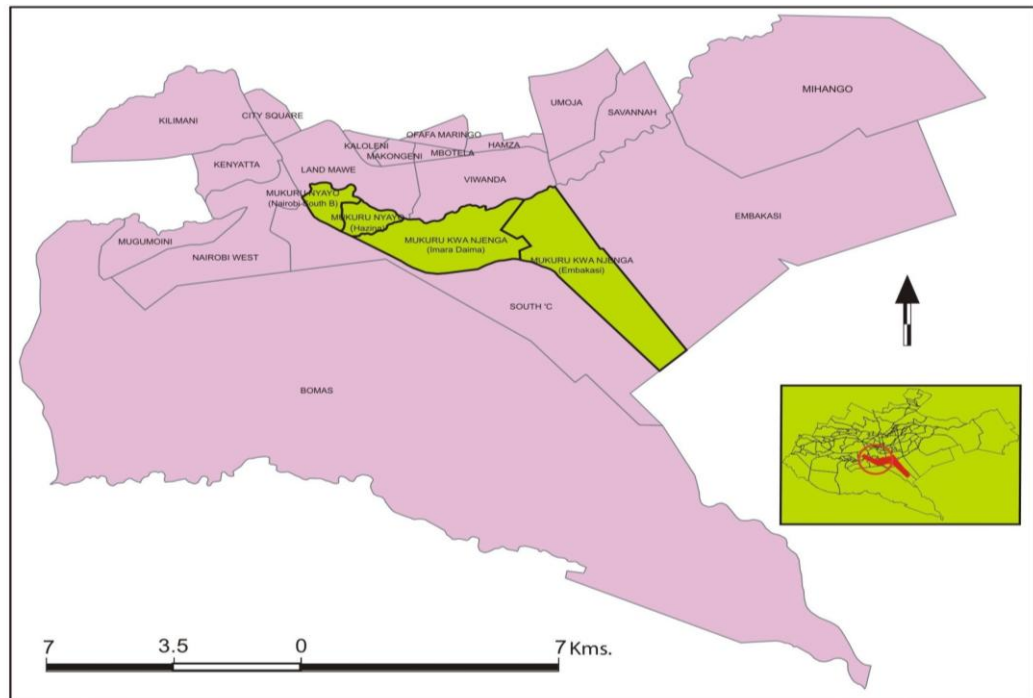
Figure 3.3 Mathare slum



Mathare slum is located 5 Km North of the City Centre at the following geographical coordinates, $1^{\circ} 15' 36''$ S, $36^{\circ} 51' 43''$ E. Mathare is estimated to have a population of approximately 500,000 people.

The unemployment rate is reported to be over 90%. Major ethnic groups in Mathare include the Kikuyu and the Luo (the two biggest tribes in Kenya), the Kamba, Luhya and other smaller tribes such as the Somali. The Luo and the Kikuyu dominate two different regions of Mathare.

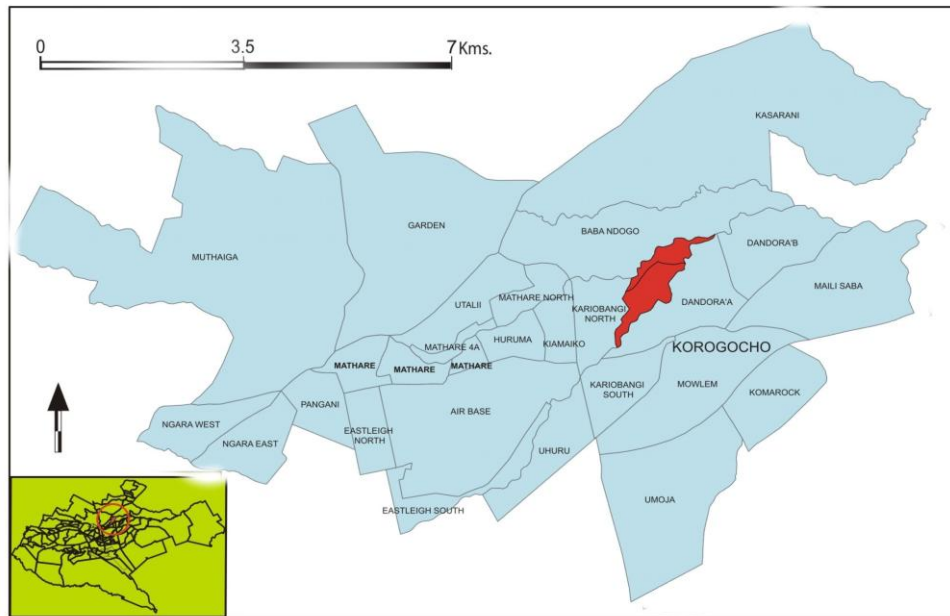
Figure 3.4 Mukuru Slum



Mukuru slum is located 7 km Southeast of the City Centre and at the following geographical coordinates: $1^{\circ}18'17''S$ $36^{\circ}53'6''E$. Mukuru slum is approximately 35 years old . It comprises 20 villages just outside Nairobi with a population of over 600,000. According to Child Aid Organization (CAO), many of the slum dwellers in Mukuru work as casual labourers in the manufacturing industries situated close to the slum. Others operate small-scale businesses selling vegetables and fruit or hawking various items. Earnings are pitifully low and inadequate to feed their families. Consequently, their children look to other means of survival such as prostitution, drug peddling, begging and criminal activities.

Families live in corrugated iron shacks measuring 10' X 10'. Large families are crammed into this tiny space to survive. The people are landless. Some were pushed from their rural homes by tribal and land clashes.

Figure 3.5 Korogocho Slum



The Korogocho slum is the fourth largest informal settlement in Nairobi, after Kibera, Mathare Valley, and Mukuru Kwa Njenga. Korogocho slum is located about 11 kilometres Northeast of the Nairobi city centre, at the following geographical coordinates, 1°13'0"S 36°55'0"E. Korgocho is home to 150,000 to 200,000 people pressed into a 1.5 square kilometres piece of land.

Korogocho slum is divided into seven "villages": Highridge, Grogan, Ngomongo, Ngunyumu, Githaturu, Kisumu Ndogo/Nyayo and Korogocho.

Conditions in Korogocho are typical of slum settlements in Nairobi. The total number of households has been enumerated at 18,537, with the largest of the seven villages consisting of 3,481 households. Like any of the other slum settlements in Nairobi, it has a large poor population with no access to minimum services, living largely in structures made out of temporary and recycled building materials - or made out of timber, mud walling, and roofing made up of substandard materials such as sacks, carton paper and polythene. There is no proper sanitation and waste management. Water reticulation is limited and the road network is inadequate. This is according to the Korogocho Slum Upgrading Programme (KSUP).

3.5 SAMPLING DESIGN

3.5.1 Objectives of the sample design

The survey was designed to provide estimates with acceptable precision for important indicators of crime victimization and perceptions of safety in a bid to make sure that statistical comparison between the slum areas are done. This is vital because the main thrust of the study is to identify whether there exists any visible differentials.

3.5.2 Target population and sampling frame

The target population for this study was all adults (those aged 18+) living in the four major slums of the City of Nairobi. Secondary data sources from the Kenya National Bureau of Statistics (KNBS) formerly known as Central

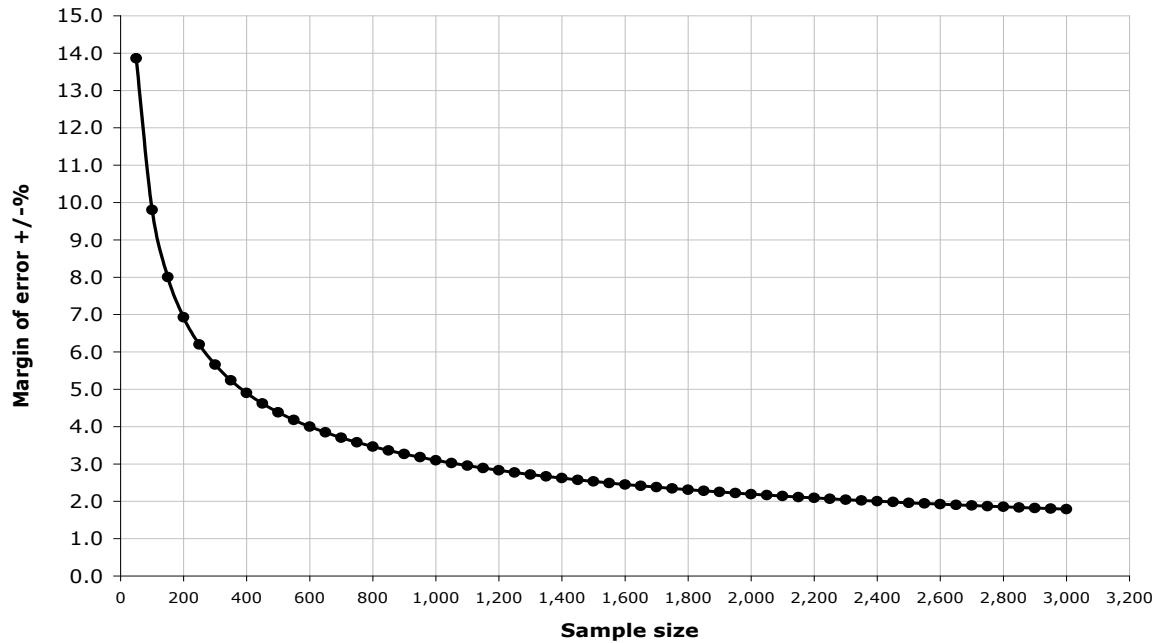
Bureau of Statistics (CBS) were availed for sampling purposes. This department has the best population data, as is the case in every country where the National Statistical Offices (NSOs) are the custodians of such data.

3.5.3 Sample size determination

There are several criteria that are used to determine sample sizes for a particular study. Such would include factors such the target population, survey objectives, desired level of accuracy (margin of error) just to mention a few. These criteria can not be used singly, but require a combination of these (not necessarily all of them at once) to arrive at the optimum sample size.

For the purposes of this study, the main considerations were the survey objectives and accuracy of the sample. Survey objectives in this case refer to the ability of the sample to be able to give reliable estimates not only at the overall domain but also at the slum domain to facilitate comparisons that would indicate whether there were any crime differentials. Secondly, the level of accuracy of the estimates provided by the sample was another consideration. The level of accuracy can be termed as the unavoidable difference between a sample statistic and a population parameter solely due the effects of random sampling. The larger the difference between the two estimates, the lower the reliability of the data. Additionally, the magnitude of this value for random samples is a factor of the sample size more that the population size. See the following figure (figure 3.6)

Figure 3:6 Margin of Error confidence level



Source: http://www.resolutions.co.nz/sample_sizes.htm , 2008

This difference is usually quantified into a +/- percentage value. For the purposes of this study a difference of +/-3.5% at 95% confidence level was allowed. By so doing and by using a statistical formula a sample of 660 respondents was arrived at. The following figure shows the formula that was used.

Sample size formula

$$CI = 1.96 \sqrt{\frac{N - n}{4Nn}}$$

Source: www2.uta.edu/sswmindel/S6347/Sampling/Sampsize.pdf

Where;

CI (Confidence Interval) is the margin of error

N is the known population size

n is the sample size and

1.96 is the Z score value at 95% confidence level

3.5.4 Sample distribution and sample implementation

Once the sample size was achieved, the next logical step was to distribute the sample across the different slum areas. To do this, the sample was initially distributed proportional to adult population size. However, due to the fact that Kibera slum had over 40% of the sample and Korogocho had only 10%, the population of the slums was allocated proportional to the square root of the population size, so that the Korogocho would get a sizeable portion of the interviews thus increasing precision of estimates for this slum. Verma (2008) used similar methods to allocate interviews disproportionately using the square-root transformation method. Table 3.1 shows the procedure. The following is the key to reading the table

Column A: The slum settlement

Column B: Population size of each slum

Column C: Population proportion for each slum

Column D: Square root transformed population

Column E: Square root population proportion for each slum

Column F: Total number of interviews done in each slum

Column G: Number of villages/PSUs to covered in each slum area

Column H: Number of interviews to be done in each village/PSU (rounded)

Table 3.1 Selection of primary sampling units

A	B	C	D	E	F	G	H
Name of Slum	Population of Slum	PPS %	Square root transformation	Square root PPS%	Total interviews	No of PSUs	No. of Interviews for each PSU (Rounded)
Kibera	267,057	43%	428	33%	220	9	28
Mukuru	154,218	25%	325	26%	168	6	32
Mathare	133,837	22%	303	24%	160	10	14
Korogoch	63,951	10%	209	17%	112	4	19
TOTAL	619,063	100%	1,265	100%	660	29	93

Source: Kenya National Bureau of Statistics (projected), 2009

Ideally, the villages formed the Primary Sampling Units (PSUs) for this survey. As such the number of villages in each of the slum was determined. The sample was then divided equally in the villages. This method has been used in cluster type of surveys and popularised by the Orc Macro Demographics and Health Surveys. This ensured that each village had been covered thus giving the study a proper geographical spread.

Afterwards, the sample within the PSUs (read villages) was implemented further at household level. Household interviews were preferred because they allowed pure random sampling ensuring full representation of the various demographics and also for quality control. These face-to-face in-home interviews were also preferred because they allowed for further probing as respondents had more time to respond to questions as compared to street interviews. In a bid to determine which household interviews would be done, a rigorous plan was designed. First, it was impossible to obtain maps from the KNBS due to bureaucratic red tape. Therefore to circumvent this problem, sketch maps of the slum areas and approximate village boundaries were first determined. To achieve this, the researcher moved with the interviewers in the slum areas to agree on the boundaries. Since the interviewers were selected from each respective slum, they had sufficient knowledge of their surrounding and were more conversant with the boundaries.

In each village several starting points were established. The number of starting points corresponded to the number of interviews done in each village. The rule-of-thumb employed here is that each starting point covered only 5 households. In order to reduce the problem spatial autocorrelation that arises from doing interviews from one location, a systematic sampling of households was done. In this regard, a mandatory household skip rule was established between the households interviewed. After the starting point, the first available household was selected for interviewing. When a successful interview was obtained, the interviewer had to skip at least 10 households in the direction taken of

household selection. In the case where no interview was obtained from a household, the interviewer went to the next household. This was repeated until the survey the sample was achieved for that PSU.

Once the interviewer reached a household for interviewing, the challenge was to determine who was to be interviewed such that there was no bias on the selection. It was vital for the interviewer to choose only one respondent from a household. In the case where there were more than one eligible respondent, the interviewer used the Kish Grid Method. The Kish grid methodology helps the interviewer to randomize which respondent is to be selected. This eliminates bias in respondent selection (Neuman, 1994:235). The Kish grid is a table of random numbers that was used to randomly select an appropriate respondent from a survey that was based at household levels. The procedures Kish grid implementation is highlighted in the appendix (appendix 4).

3.5.5. Instrument development

As mentioned earlier, the quantitative phase of this study used a semi-structured questionnaire having both open and closed ended questions. However, some questions were partially closed since they provided an option of the respondent mentioning other issues that were not in the predetermined list. The two methods of asking questions were practical because answers to certain questions were better measured through open-ended format while answers to other questions were better measured through the close-ended format.

These instruments were constructed with the objectives of the study in mind. They were later translated into Kiswahili to cater for non-English speaking slum dwellers. There was no need to translate the questionnaire to other vernacular languages, since it is obvious that slum dwellers would communicate well in either English or Swahili.

The instrument was pre-tested in a pilot study. The details of the pilot study are presented below.

3.5.6. Pilot study

Typically, a preliminary micro-research study serves many purposes such as testing of the sampling methods, research design, and data collection methods and data analysis. For example, unclear/ambiguous questions, and those difficult to answer or eliciting unintended information are detected in this step. The main aim of this pilot study was to provide a basis for clarifying questions, wording and removing unnecessary questions.

Research assistants were also used to facilitate data collection. The research assistants were initially briefed and taken through the entire questionnaire. The pilot study was then conducted. Afterwards the research assistants raised several issues. This gave rise to the suggestions that were supportive in modifying the questionnaire. A case in point was the wording of some questions. Questions on attitudes towards safety were rephrased to make them more understandable to the respondents. Additionally, some crime types were

translations were simplified from hard Swahili words to the ones known to respondents.

The pilot study was conducted in the areas selected for this study. The pilot study involved 58 respondents as follows, Kibera slum 18, Mukuru slum 12, Mathare slum 20 and Korogocho slum 8. The 58 respondents were about 10% of the actual total number interviews required for this study. The pilot samples were not included in the main study.

3.5.7. Data quality assurance and control

Sample surveys are affected by two types of errors. First is the sampling error due to sampling design and random effects and the other is the non-sampling error due to interviewer bias.

The former is easy to measure and is usually controlled by the appropriate sampling design. The latter is problematic to measure. However with proper quality control procedures it is possible to alleviate the problem. The quality control procedures instituted included the following;

A three-day briefing and debriefing of the research assistants to familiarise themselves with the instrument and to master all questions skips and necessary probes (especially for open-ended questions). Additionally, 20% of back-checks were done. Independent assistants went back to verify whether the interviews were done or not. This process ascertained that the interviews were

actually done and that the responses given by the respondents were a true reflection of the respondents view.

3.5.8. Data Analysis

After the fieldwork, all questionnaires were checked and edited for internal consistency, and missing information. After all issues were resolved, the questionnaires were entered into MS-Excel using the double blind strategy (Nachmias & Nachmias, 1996:320). In this case two independent data entry clerks enter all the interviews schedule. This yielded two sets of data that were cross-checked to ascertain whether there was any error in data entry. All inconsistencies were resolved by re-entering the information on those entries that had problems.

The data was subjected to further scrutiny by the use of computer software. In particular, the Statistical Package for Social Science [SPSS] version 12.0 was used to achieve this. First exploratory data analysis was done to check on basic data frequency distributions. Cross tabulations were used to check responses within the context of other questions. Only those cross tabulations that contributed to the analyses of the hypotheses were retained and have been used in the report. Frequencies, percentages and means were used to summarise and organize data as well as to draw some conclusions from the study.

Additionally, appropriate inferential statistics were used to test the postulated hypotheses. Such included: Chi-square [χ^2]. The Chi-square is a technique which is used to test the relationship between two categorical variables when

the data are at the nominal level. The calculated Chi-square was cross-checked against the Chi-square table at the appropriate degrees of freedom to determine the level at which the hypothesized relationship was statistically significant. Analysis of Variance [ANOVA] was used to analyse differences between the means of more than two [samples] groups. This was applied when testing equality of means between the four slum areas. Principal Components Analysis (PCA) was used to generate the wealth quintiles in the four slums. See section 4:1:13 “*Slum poverty profile*” for further details. Factor analysis was used to reduce and check the dimensionality of the safety attitudes statements. See section 4.4.4.2 “*Understanding the underlying dimension of safety statements*” for further details.

3.5.8. Qualitative phase

Qualitative research is a useful technique that can be combined with quantitative research to elicit more information that would have otherwise not be captured by the latter. According to Natasha, et al [2005:78], the strength of qualitative research is its ability to provide complex textual descriptions of how people experience a given research issue. This study therefore utilized the qualitative approach to provide explanations on the observed quantitative data.

For the purposes of this study, the Focus Group Discussion (FGD) method was used to collect qualitative data. Four FGDs were conducted on the slum areas selected for this study. These were as follows:

- Kibera-Male FGD

- Mathare-Male FGD
- Korogocho-Female FGD
- Mukuru-Female FGD

A FGD discussion guide was developed based on the issues that had arisen from the quantitative phase and those that would require more explanations. The FGD guide was then translated into Kiswahili, to cater for those who found easier to express themselves in the language.

Each FGD had 8 respondents who contributed their opinion on the subject under discussion. A note-taker was present in all the sessions. Every FGD session was recorded with an audiotape. The recorded audiotapes were then transcribed and translated into English for further analysis.

In analyzing the data, the field notes were expanded after each session and a general summary of the proceedings of the FGDs was done. This provided a basic reference to the main topics and/or issues that were discussed. Additionally, by using the field notes summary, a data coding guide was developed based on the main themes. The data coding guide was used on the transcripts. The transcript information was coded. The verbatim were then organized on the coded themes. Afterwards, the coded verbatim statements were cross-referenced with the quantitative information. Coded verbatim statements that best explained and added more information to the quantitative data were selected for citation as voices.

The next chapter presents the study results in detail.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4:1 SAMPLE CHARACTERISTICS

4.1:1 Introduction

The following section deals with an analysis of the socio-demographic structure of the sampled slum residents. The main emphasis of this section is to establish whether there are similarities or differences between the demographic and socio-economic structures among the different slum areas. The following hypothesis was tested across the different characteristics.

Hypothesis 1: The four different slums are structurally similar in their socio-economic and demographic profiles.

The characteristics discussed in this section includes gender parity, age profiles, highest level of educational attainment, marital status, employment status, income, duration of stay in slums, religious affiliation, ethnicity, household size and poverty profiles.

4.1:2 Gender

The findings from this study indicate that there is a slight skew towards a more male-dominated slum environment. Male gender constitutes slightly above half (53%) of the slum dwellers. This finding is consistent with that of African

Population and Health Research Centre (hereinafter, APHRC) (2002) which indicated that the males in Nairobi’s slum environments average out at about 56%. There are also not slight variations between the different slum areas. For example Mathare had the highest proportion of sampled at 57% while Korogocho had only 46%.

Table 4.1 shows the gender profiles of the four slums studied. Male dominance in slum environments has been attributed to urban-rural migration, where males from rural areas move to the urban areas in search of employment.

Table 4:1 Gender distribution

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Male	116	52.0%	87	57.2%	92	54.4%	53	46.1%	348	52.8%
Female	107	48.0%	65	42.8%	77	45.6%	62	53.9%	311	47.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=3.157$, $df=3$, $p=0.319$, Not significant)

They end up in slum environments because of cheaper standards of living. However, this trend is fast changing in that gender parity is almost evening out. The search for jobs in urban areas is no longer a male affair because women also have improved their marketability in the job place, for example by way of getting more educational opportunities and the paradigm shift from male dominated traditions to more contemporary gender equality. The findings from this study suggest that there is increased involvement of females in the urban-

rural migration. Additionally this might also be attributed to the fact that most men also live with their families in the slum areas more than before.

4:1:3 Age profile

Generally, the findings from this study indicate that the slum population is predominantly youthful with three-quarters being below the age of 35 years. Other studies have also shown a similar age distribution in Nairobi slums. APHRC (2002) had over 75% of the slum dwellers they researched on to be within this age bracket.

A cross analysis of the age groups between the slum settlements shows an association. See Table 4.2. This is due to the fact that Kibera carries the largest proportion (80%) of the under-35 years while Mathare (which is the least) has 68%.

Table 4:2. Age profile

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
18-24 years	85	38.1%	36	23.7%	51	30.2%	48	41.7%	220	33.4%
25-34 years	94	42.2%	67	44.1%	80	47.3%	42	36.5%	283	42.9%
35-44 years	25	11.2%	31	20.4%	28	16.6%	14	12.2%	98	14.9%
45-54 years	9	4.0%	9	5.9%	4	2.4%	9	7.8%	31	4.7%
55-64 years	5	2.2%	8	5.3%	4	2.4%	0	0.0%	17	2.6%
65 years+	1	0.4%	1	0.7%	0	0.0%	2	1.7%	4	0.6%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=17.103$, $df=15$, $p<0.01$) significant

The youthfulness of the slum residents is attributed to the fact that majority of the dwellers are within the labour productive age and can engage actively in employment. It is known that majority of the slum residents participate in casual labour. Casual labour is strength intensive meaning that the younger generation has energy to engage in laborious work for pay.

4:1:4. Educational attainment.

The slum population in terms of their educational attainment can be described as “medium”. They are neither illiterate nor highly educated. About three in four (75%) adults in the area had primary and secondary school education. Another 15% indicated that they had or are currently pursuing tertiary education. Comparing between the different slum settlements, Mukuru dwellers are significantly more learned than their counter parts as shown in table 4.3. More than six in ten adults from Mukuru have secondary school level of education and better compared to their counterparts in the other three slums.

Table 4:3. Highest level of education attainment

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
No formal education	4	1.8%	9	6.0%	3	1.8%	5	4.4%	21	3.2%
Some primary school	11	5.0%	19	12.6%	7	4.2%	20	17.5%	57	8.7%
Primary completed	49	22.3%	48	31.8%	26	15.5%	26	22.8%	149	22.8%
Some secondary	54	24.5%	29	19.2%	23	13.7%	22	19.3%	128	19.6%
Secondary completed	70	31.8%	24	15.9%	78	46.4%	23	20.2%	195	29.9%
Tertiary College	29	13.2%	20	13.2%	30	17.9%	17	14.9%	96	14.7%
University and above	3	1.4%	2	1.3%	1	0.6%	1	0.9%	7	1.1%
Total	220	100.0%	151	100.0%	168	100.0%	114	100.0%	653	100.0%

($\chi^2=73.267$, $df=18$, $p<0.05$) significant

4:1:5 Marital status.

About half of the slum residents in Nairobi who are 18 years old and above are married while another four in ten adults are single. These two categories account for 84% of the different marital statuses reported in the study. There is variation between the slum settlements. Table 4.4 shows the differences between the four slums. In this case, Mukuru has the largest proportion of single person (51%) while it has the lowest (49%) for married lot.

Table 4:4. Marital Status

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Single	99	44.4%	52	34.2%	86	50.9%	47	40.9%	284	43.1%
Married	112	50.2%	80	52.6%	72	42.6%	57	49.6%	321	48.7%
Other	12	5.4%	20	13.2%	11	6.5%	11	9.6%	54	8.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=23.875$, $df=6$, $p<0.05$) significant

4:1:6 Employment status

Slum areas are regions of urban poverty. This is directly attributed to the ability of the residents to secure income earning activities. The work status of many of the slum residents is engagement in low income earning activities such as casual labour. For example, about one third of the slum adult population is casual labourers. Another quarter is absolutely jobless and does not have any income earning activities. A comparison between the settlements shows that there is no significant difference as far as work status is concerned (Table 4.5). However, the incidence of involvement casual work is higher in Mathare than in any other slum areas.

Table 4:5 Work status

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Unemployed	72	32.9%	30	20.3%	38	22.9%	23	20.9%	163	25.3%
Employed casual labourer	58	26.5%	57	38.5%	50	30.1%	37	33.6%	202	31.4%
Employed part-time	22	10.0%	13	8.8%	15	9.0%	5	4.5%	55	8.6%
Employed full-time	21	9.6%	14	9.5%	18	10.8%	10	9.1%	63	9.8%
Self employed	43	19.6%	33	22.3%	44	26.5%	34	30.9%	154	24.0%
Retired	3	1.4%	1	0.7%	1	0.6%	1	0.9%	6	0.9%
Total	219	100.0%	148	100.0%	166	100.0%	110	100.0%	643	100.0%

($\chi^2=20.238$, df=15, p=0.163) not significant

Additionally, the incidence of self employment accounts for about a quarter (24%) of employment. This is slightly more pronounced in Korogocho (31%).

4:1:7 Income profiles

As in many surveys, disclosure of personal or household income is still a sensitive issue. In this survey, when the respondents were asked to disclose their income, only 68% agreed to do so. This was highly pronounced in Kibera slums where only 54% of them disclosed their current income level.

From the lot that disclosed their figures, it is true that people who live in slum areas live on less than one dollar per day. On average over three quarters of slum dwellers earn below Kshs. 7,000.00 per month. Table 4.6 shows the results that indicate that Kibera and Mukuru have residents who on average earn significantly higher personal incomes than their counterparts in Mathare and Korogocho. While only two in ten Kibera and Mukuru residents earn Kshs. 3,000.00 and below, over half of the residents in Mathare and Korogocho slums are in this income bracket. This could be attributed to the fact that Kibera and Mukuru slum residents have comparatively higher educational levels than their counterparts (Table 4.3). A higher level of education is correlated to better jobs hence more income.

Table 4:6. Income profiles

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Less than 1000.00	8	3.6%	15	9.9%	3	1.8%	23	20.0%	49	7.4%
1000.00 to 3000.00	16	7.2%	54	35.5%	14	8.3%	21	18.3%	105	15.9%
3001.00 to 5000.00	41	18.4%	41	27.0%	39	23.1%	21	18.3%	142	21.5%
5001.00 to 7000.00	31	13.9%	18	11.8%	35	20.7%	6	5.2%	90	13.7%
7001.00 to 9000.00	16	7.2%	2	1.3%	11	6.5%	2	1.7%	31	4.7%
Over 9000.00	9	4.0%	3	2.0%	14	8.3%	4	3.5%	30	4.6%
Refused	102	45.7%	19	12.5%	53	31.4%	38	33.0%	212	32.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=105.682$, $df=15$, $p<0.05$) significant

4:1:8 Length of stay

Generally speaking, almost half [47%] of the slum dwellers in Nairobi have been in those environments for a period of over six years. Most of them have been born and brought up in the slum areas. The main reason for high preference of living in slum areas is the affordable lifestyles that are experienced in slum areas and especially in terms of rent and food costs. However, there is a significant differentiation between the different slum areas as shown in Table 4.7. For example, Kibera and Korogocho have over half of their residents having stayed there for more than ten years while in Mathare and Mukuru slums less than half of their populations have lived there for over five years.

Table 4:7. Length of stay in the slum

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Less than 1 year	7	3.2%	5	3.3%	17	10.2%	10	8.7%	39	6.0%
Between 1 and 3 years	46	20.7%	42	28.0%	68	40.7%	21	18.3%	177	27.1%
Between 4 and 6 years	34	15.3%	38	25.3%	37	22.2%	21	18.3%	130	19.9%
Over 6 years	135	60.8%	65	43.3%	45	26.9%	63	54.8%	308	47.1%
Total	222	100.0%	150	100.0%	167	100.0%	115	100.0%	654	100.0%

($\chi^2 = 59.561$, df = 9 p<0.05) significant

4:1:9 Religious affiliation

Just like the national religious affiliation distribution, over 80% of slum dwellers claim to profess the Christian faith. In particular, over half claim to be Protestant while another 40% claim to be Catholic Christians. Muslims in slum areas only have a paltry 5%. However, the data suggests that Kibera and Korogocho have a higher proportion of Muslims [9% and 7% respectively] than in the other slums. Table 4.8 shows the extent to which the four slums are different in the religious profiles of their residents. This is so mainly due to some ethnic populations residing in these areas. For example, Kibera slum is inhabited by the Nubian community who are predominantly Muslim, while Korogocho has more Cushitic tribes from North Eastern province who are also predominantly Muslim. This therefore makes the religious landscape between the slum areas to be significantly different.

Table 4:8. Religious affiliation

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Christian – Catholic	73	32.7%	77	50.7%	69	40.8%	49	42.6%	268	40.7%
Christian – Protestant	124	55.6%	64	42.1%	93	55.0%	51	44.3%	332	50.4%
Muslim	20	9.0%	3	2.0%	2	1.2%	8	7.0%	33	5.0%
No religion	1	0.4%	4	2.6%	3	1.8%	6	5.2%	14	2.1%
Other	4	1.8%	2	1.3%	0	0.0%	1	0.9%	7	1.1%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2 = 27.523$, df = 12, p<0.05) significant

4:1:10 Ethnicity

Slums as mentioned earlier are a result of the rural-urban migration. Typically, those who move from the rural areas to look for work do so such that they move to stay in with family members, distant relatives or village mates. This therefore leads to the concept of “*ethnocentric slum habitation*”. This essentially means that in slums, most people live in ethnic colonies. For example, in Kibera slums, there exists some villages such as Kisumu Ndogo where majority of the inhabitants come from the Luo community. Additionally, in Laini Saba, Kambas are the majority of the inhabitants.

As far as ethnicity is concerned, four major communities dominate. First the Kikuyu and Luo are prominent in the slums with 25% and 27% respectively. In the second tier are Luhya and Kamba who have at least 15% each. From each slum perspective, Kibera is dominated by Luhya and Luo, Mathare by Luo and Kikuyu, Mukuru by Kamba and Kikuyu while Korogocho is dominated by Luo and Kikuyu as well (Table 4.9). Nubians are found in Kibera alone and account for 2% of all slum population and 7% of all Kibera population.

Table 4:9. Ethnicity

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Kamba	22	10%	26	17%	45	27%	7	6%	100	15%
Kikuyu	28	13%	61	40%	38	22%	38	33%	165	25%
Luhya	46	21%	19	13%	18	11%	15	13%	98	15%
Luo	77	35%	35	23%	27	16%	42	37%	181	27%
Others	50	22%	11	7%	41	24%	13	11%	115	17%
Total	223	100%	152	100%	169	100%	115	100%	659	100%

($\chi^2 = 100.221$, $df = 12$, $p < 0.001$) significant

4:1:12 Household size

The findings from this study indicate that most households in the slum areas have between two and four persons living in one household (Table 4.10). This is a typical household size for many households in the urban areas.

Generally the average household size is 3.2 in the slum areas. However, this average differs significantly between the different slum areas. Korogocho has the highest average of 3.8 persons per household, followed by Kibera and Mathare which have 3.2 persons per household. Mukuru seems to be the one with the lowest household size with only 2.9 persons per household.

Table 4:10. Household size

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
One	16	7.2%	17	11.2%	21	12.4%	2	1.7%	56	8.5%
Two	61	27.4%	33	21.7%	50	29.6%	25	21.7%	169	25.6%
Three	52	23.3%	43	28.3%	55	32.5%	27	23.5%	177	26.9%
Four	68	30.5%	36	23.7%	27	16.0%	32	27.8%	163	24.7%
Five	15	6.7%	15	9.9%	9	5.3%	13	11.3%	52	7.9%
Above Five	11	4.9%	8	5.3%	7	4.1%	16	13.9%	42	6.4%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2 = 43.145$, $df = 15$, $p < 0.05$) significant

The low household sizes can be attributed mainly to the fact that earlier on slums were dominated by urban migrants from the rural areas who were mainly males who had come to seek for work. However, this demographic is changing; more people have now been able to raise their families in the slums. As such, this being a period of that change, the household sizes are also large.

4:1:13 Slum poverty profile

Slums are generally known to be areas that represent urban poverty. Due to lack of essential necessities such as adequate shelter and sanitation, these regions are inhabited with populations that can hardly survive on more than a dollar a day. However, while this has been the common paradigm anecdotal information reveals that there exist different socio-economic profiles within the slums. For example, it is known that the landlords who build and rent houses in slum areas also live in the slums as well. This group of people is affluent but has decided to live in the slums to safeguard their economic interests.

In a bid to determine the level of affluence, income information is not enough, either due to the fact that there are chances that respondents might under or over claim. As such in its place, there is a substitute measure known as the wealth index. This index has been developed to profile the social-economic well being of any population. It is derived from ownership of essential household durables and use of various services. This information is analyzed with Principal Components Analysis [PCA] to determine the wealth score. This

wealth score is then grouped into 5 equal groups at the total population level and compared across the different slums.

A closer look at Table 4.11 reveals that there are significant differences between the slum areas as far as their socio-economic profiles are concerned. In analyzing the top most profile, it is clear that Mukuru stands out from the rest of the slums with about one third [32%] of its population occupying this category. Kibera is the lowest with only one in ten [10%]. This fact contradicts Table 4.6. This is evidence that respondent stated income is subject to inflationary biases, and that's why a household asset base poverty profiling is more usable in this regard.

Table 4:11. Slum poverty profiles

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Lowest	39	17.5%	47	30.9%	14	8.3%	31	27.0%	131	19.9%
Fourth	46	20.6%	28	18.4%	37	21.9%	22	19.1%	133	20.2%
Third	42	18.8%	25	16.4%	40	23.7%	22	19.1%	129	19.6%
Second	74	33.2%	19	12.5%	24	14.2%	18	15.7%	135	20.5%
Highest	22	9.9%	33	21.7%	54	32.0%	22	19.1%	131	19.9%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=77.920$, $df=12$, $p<0.001$, Significant)

Summary

Table 4.12 carries the results for factors which there are significant and non-significant differences. For the majority of the sample demographic and socio-economic characteristics, there are significant variations. Despite the perceptions that slums areas are homogeneous, in terms of demographics and

their socio-economy, this study has shown that there are fundamental differences.

Table 4:12. Overview of slum differentiation on given attributes

Sample characteristic	Analysis level	Decision Rule
Gender	between slum areas	Not significant
Age	between slum areas	Significant difference
Education attainment	between slum areas	Significant difference
Marital status	between slum areas	Significant difference
Employment status	between slum areas	Not significant
Income profiles	between slum areas	Significant difference
Length of stay	between slum areas	Significant difference
Religious affiliation	between slum areas	Significant difference
Ethnicity	between slum areas	Significant difference
Slum poverty profile	between slum areas	Significant difference

4:2 TYPOLOGY AND CAUSES OF CRIME IN THE SLUMS OF THE CITY OF NAIROBI

The first objective describes the crime scenarios in the different slums of Nairobi in a bid to underscore, which are the most prevalent crimes, based on the residents' perceptions and opinions.

4:2:1 Crime scenario in the slum areas

In a bid to analyze the crime situation in the slum areas, the respondents were asked to generally describe the types of crimes they face in their area. Caution was taken during the interview to emphasize that these were crimes that they faced in their area and not in the whole city or country.

The respondents were provided an opportunity to freely describe the types of crimes they faced without any assistance from the interviewer. This yielded the spontaneous crime mentions. Afterwards, the respondents were prompted on a list of crimes to see whether they would remember any other crimes that they had not mentioned spontaneously. This yielded the prompted crime mentions. This interviewing technique was used to evaluate which crimes were top-of-mind and those that were not. Top-of-mind crimes are those which the respondents remember easily. In this way, it is possible to determine which crimes were either very recent and/or very severe. These two values were grossed up to obtain the total mentions which are shown in Table 4:13 The table has been ranked in descending format by the total column.

Table 4:13 Total mentions of crime in slums

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Illicit brew	213	13.3%	152	12.0%	163	12.8%	112	10.6%	640	12.3%
Robbery	187	11.7%	143	11.3%	158	12.4%	105	10.0%	593	11.4%
Burglary	191	11.9%	122	9.6%	141	11.1%	105	10.0%	559	10.8%
Mugging	182	11.4%	127	10.0%	140	11.0%	102	9.7%	551	10.6%
Drugs	184	11.5%	129	10.1%	128	10.1%	98	9.3%	539	10.4%
Assault	173	10.8%	144	11.3%	103	8.1%	102	9.7%	522	10.0%
Murder	153	9.6%	106	8.3%	92	7.2%	80	7.6%	431	8.3%
Robbery with violence	112	7.0%	81	6.4%	117	9.2%	99	9.4%	409	7.9%
Pick-pocketing	83	5.2%	99	7.8%	94	7.4%	80	7.6%	356	6.9%
Sexual abuse	67	4.2%	44	3.5%	55	4.3%	80	7.6%	246	4.7%
Arson	14	0.9%	71	5.6%	54	4.2%	31	2.9%	170	3.3%
Kidnapping	10	0.6%	27	2.1%	10	0.8%	28	2.7%	75	1.4%
Car-jacking	7	0.4%	17	1.3%	13	1.0%	23	2.2%	60	1.2%
Other	23	1.4%	9	0.7%	4	0.3%	7	0.7%	43	0.8%
Total Mentions	1599	100.0%	1271	100.0%	1272	100.0%	1053	100.0%	5195	100.0%

From a sample of 659 respondents, a total of 5,195 individual crimes were mentioned. This accounts for about an average of 8 crimes mentioned by each person. From this, most mentions came from Kibera (31%), Mathare (25%), Mukuru (25%) and finally Korogocho had 20%.

As far as each crime is concerned, none of them accounted for more than 15% of all the mentions. Illicit brew had a share of mentions of 12%, followed by general robbery (11%). Burglary, Mugging, Drug abuse and Assault each accounted for about 10% of all mentions. The rest as seen from Table 4:13 had less than 10% of the mentions.

4:2:2 Crime incidence in the slum areas

Table 4:14 Crime Incidence in slums

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Illicit brew	213	95.5%	152	100.0%	163	96.4%	112	97.4%	640	97.1%
Robbery	187	83.9%	143	94.1%	158	93.5%	105	91.3%	593	90.0%
Burglary	191	85.7%	122	80.3%	141	83.4%	105	91.3%	559	84.8%
Mugging	182	81.6%	127	83.6%	140	82.8%	102	88.7%	551	83.6%
Drugs	184	82.5%	129	84.9%	128	75.7%	98	85.2%	539	81.8%
Assault	173	77.6%	144	94.7%	103	60.9%	102	88.7%	522	79.2%
Murder	153	68.6%	106	69.7%	92	54.4%	80	69.6%	431	65.4%
Robbery with violence	112	50.2%	81	53.3%	117	69.2%	99	86.1%	409	62.1%
Pick-pocketing	83	37.2%	99	65.1%	94	55.6%	80	69.6%	356	54.0%
Sexual abuse	67	30.0%	44	28.9%	55	32.5%	80	69.6%	246	37.3%
Arson	14	6.3%	71	46.7%	54	32.0%	31	27.0%	170	25.8%
Kidnapping	10	4.5%	27	17.8%	10	5.9%	28	24.3%	75	11.4%
Car-jacking	7	3.1%	17	11.2%	13	7.7%	23	20.0%	60	9.1%
Other	23	10.3%	9	5.9%	4	2.4%	7	6.1%	43	6.5%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

From the slum perspective as far as the total crime mentions are concerned, it is clear that the production and consumption of illicit brew is the most prevalent crime experienced in the slum areas [97%]. This is followed by general robbery [90%], burglary [85%], mugging [84%], drug abuse [82%] assault [79%], and murder [65%], robbery with violence [62%], pick-pocketing [54%], sexual offences [37%], arson attacks [26%], kidnapping [11%] and car jacking [9%]. Other minor crimes not in the list accounted for only 6% of the respondents. This information confirms that there is a lot of crime experienced in the slum areas.

4:2:3 Differentials of crime typology in slums

The following subsection deals with the nature and crime typology with a view of establishing whether there exist differentials in the incidences of crime

between the slums. In this subsection, the following hypothesis is tested across the different crime types.

Hypothesis 2: There is no variation in the nature and typology of crime across the four different slums

The aforementioned crimes are grouped in five major categories. These include: Substance abuse, violent crimes, property crimes, sexual crimes and petty crimes.

4:2:3:1 Substance Abuse Crimes

4:2:3:1:1 Illicit brew

Table 4:15: Incidence of Illicit brew across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Illicit brew	213	95.5%	152	100.0%	163	96.4%	112	97.4%	640	97.1%
No Illicit brew	10	4.5%	0	0.0%	6	3.6%	3	2.6%	19	2.9%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=6.854$, $df=3$, $p>0.05$, Not Significant)

The data suggests that illicit brew is almost universal in all the slums since 97% of the respondents attested to this fact. As seen in Table 4:15 Over 95% percent of each of the slums' respondent mentioned it. As such, there is no significant difference between the slums. The main reason could be attributed to the fact that informal settlements are conducive for such brews since it is cheap and it is difficult for the law enforcing authorities to curb it out completely mainly due to the structure of slum housing.

4:2:3:1:2 Drug Abuse

Table 4:16: Incidence of illegal drugs across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Drugs	184	82.5%	129	84.9%	128	75.7%	98	85.2%	539	81.8%
No Drugs	39	17.5%	23	15.1%	41	24.3%	17	14.8%	120	18.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=6.106$, $df=3$, $p>0.05$, Not Significant)

Illegal drug usage also gets a huge mention, overall. At least 8 in 10 respondents claimed that they know some drug abuse crime take place in the slums. The usage of drugs in slum areas is rampant since over three quarters (75%) of the respondents in each slum claimed that it is one of the most rampant crimes. From one of the FGDs, a respondent said:

“...so they abuse those types of tablets because they use it as a drug but it was not meant for you know, taking as a drug so they just use... and others, so you will just you know, get something like, cannabis sativa (bhang)...” [Kibera Men FGD].

Due to the fact that law enforcement is almost non-existent in the slum areas, this condition provides a thriving environment for drug related crimes. The lack of the statistical difference between the slums with this regard clearly indicates that slums are hives of drug abuse.

4:2:3:2 Violent Crimes

4:2:3:2:1 Robbery with violence

Table 4:17: Incidence of robbery with violence across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Robbery with violence	112	50.2%	81	53.3%	117	69.2%	99	86.1%	409	62.1%
No robbery with violence	111	49.8%	71	46.7%	52	30.8%	16	13.9%	250	37.9%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=50.122$, $df=3$, $p<0.05$, Significant)

Robbery with violence was another type of crime mentioned. Across all slums, 62% of the respondents claimed that it was a crime that has been occurring within the last year of the study. A check across the slums indicated that there was a significant difference between this type of crime. Table 4:17 shows that while less than 70% of the slum residents attested to having heard about this type of crime in their locality (i.e. Kibera, Mathare and Mukuru) a huge portion of those living in Korogocho (86%) claimed that this crime is rampant.

4:2:3:2:2 Robbery

In this subsection, robbery and robbery with violence are treated separately. See operational definition of terms section for the described differences.

Table 4:18: Incidence of robbery across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Robbery	187	83.9%	143	94.1%	158	93.5%	105	91.3%	593	90.0%
No robbery	36	16.1%	9	5.9%	11	6.5%	10	8.7%	66	10.0%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=14.648$ df=3, p<0.05, Significant)

Robbery also is a frequently occurring crime in the slum areas. As can be seen from Table 4:18 90% of the total sample mentioned it. A Chi-Square test to check its variation across the slums indicates a significant difference. This is due to the fact that Kibera residents registered a comparatively lower incidence (84%) of general robbery compared to the rest of the slum areas.

4:2:3:2:3 Murder

Murder being a capital offence, it is surprisingly is rampant in the slum areas to the tune of 65% of the slum dwellers indicating that they have encountered murder crimes in their respective localities. A significance test to check differentials between the slums indicate that there is a significant difference. The specific slums' murder incidence is similar to the overall distribution save for Mukuru which has a 15% lower incidence compared to the other slums. See Table 4:19. This is the source for the significant variation.

Table 4:19: Incidence of murder across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Murder	153	68.6%	106	69.7%	92	54.4%	80	69.6%	431	65.4%
No murder	70	31.4%	46	30.3%	77	45.6%	35	30.4%	228	34.6%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=14.648$ df=3, p<0.05, Significant)

4:2:3:2:4 Mugging

Mugging is also rampant in slums. As seen from Table 4:20, about 84% of the slum residents complained about mugging incidents in their neighbourhood. This did not differ significantly between the slums because each of the slums had about 80% mention of mugging. The variation across the different slum with this regard was minimal.

Table 4:20: Incidence of mugging across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Mugging	182	81.6%	127	83.6%	140	82.8%	102	88.7%	551	83.6%
No mugging	41	18.4%	25	16.4%	29	17.2%	13	11.3%	108	16.4%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=2.892$ df=3, $p<0.409$, Not Significant)

4:2:3:2:5 Assault

Physical assault is yet another crime that was mentioned by the respondents. Like mugging, about 80% of the respondents claimed that they had witnessed incidents of physical assault and battery. The results are displayed in Table 4:21. This crime statistically differed in incidence between the slums. Mathare had the highest likelihood of encountering physical assault incidents at 95%. Mukuru on the other hand had the comparatively the least likelihood at 61%.

Table 4:21: Incidence of physical assault across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Assault	173	77.6%	144	94.7%	103	60.9%	102	88.7%	522	79.2%
No assault	50	22.4%	8	5.3%	66	39.1%	13	11.3%	137	20.8%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=63.128$, df=3, p<0.05, Significant)

4:2:3:2:6 Car Jacking

The results suggest that car jacking is one of the rarest forms of crime in the slum areas. While the rest of the crimes have registered over 60% of mentions, about 10% of the respondents claimed to have known of experienced car jacking in their localities. See Table 4:22. Mukuru had the highest incidence at 24% while Kibera had only 5%. These differences accounted for the major sources of the statistical differentiation.

Table 4:22: Incidence of car jacking across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Car-jacking	7	3.1%	17	11.2%	13	7.7%	23	20.0%	60	9.1%
No car-jacking	216	96.9%	135	88.8%	156	92.3%	92	80.0%	599	90.9%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=40.830$, df=3, p<0.05, Significant)

4:2:3:2:7 Kidnapping

Just like car jacking, kidnapping is also rare in slums. Table 4:23 shows that simply because there would be very few cars (if any) in the slums. Due to congestion, such type of motorised transport is quite uncommon within the slum areas.

Table 4:23: Incidence of kidnapping across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Kidnapping	10	4.5%	27	17.8%	10	5.9%	28	24.3%	75	11.4%
No Kidnapping	213	95.5%	125	82.2%	159	94.1%	87	75.7%	584	88.6%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=27.287$, df=3, p<0.05, Significant)

4:2:3:3 Property Crimes

4:2:3:3:1 Burglary

Burglary received a huge mention from the respondents. Table 4:24 indicates that at least 8 in 10 (84%) slum residents has witnessed burglary incidents in their slum localities. A further analysis indicates that the level of burglary is almost at the same level in all the slums since the Chi-square analysis did not detect any significant differences. This is so because the specific slum burglary incidence ranges between 80% (Mathare) and 91% (Korogocho).

Table 4:24 Incidence of burglary across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Burglary	191	85.7%	122	80.3%	141	83.4%	105	91.3%	559	84.8%
No Burglary	32	14.3%	30	19.7%	28	16.6%	10	8.7%	100	15.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=6.581$, df=3, p<0.087, Not Significant)

4:2:3:3:2 Arson Attacks

Nairobi slums are usually affected by periodic fires basically due to electrical faults. For the purposes of this section, these types of fires were left out. The

respondents were informed that arson attacks as per the requirement of this survey were deliberate fires ignited by persons with ulterior motives rather those by occurring by accident.

The results suggest that about a quarter (25%) (table 4.25) of slum residents claimed to have experienced arson attacks in one way or another. However, there was a definite statistical differentiation between the slums. It is surprising that arson Kibera is almost non-existent (only at 6%). Other slums recorded between 27% and 47% mentions of arson attacks.

Table 4:25 Incidence of arson across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Arson	14	6.3%	71	46.7%	54	32.0%	31	27.0%	170	25.8%
No arson	209	93.7%	81	53.3%	115	68.0%	84	73.0%	489	74.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=82.541$, $df=3$, $p<0.05$, Significant)

4:2:3:4 Sexual Crimes

Sexual offences are also common in the slum areas. Though they are slightly fewer than for other rife crimes, a mention by about 40% of the residents is alarming. This means that about 4 in 10 respondents were aware of some sort of a sexual offence that had been carried out in their locality. A further check across the slums unveils shocking details. While only about 30% of respondents from other slums claimed to know incidents of sexual offences, Korogocho registered the highest at about 70%. See Table 4:26. Due to

Korogocho’s high sexual crime reported incidents, there was definitely a significant difference between the slums.

These results were supported by the FGDs. One respondent from the Korogocho FGD said:

“...we also have rape cases...many rape cases and especially against elderly women...is it something you hear of quite often these days... even men raping children...’

Table 4:26 Incidence of sexual abuse across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Sexual abuse	67	30.0%	44	28.9%	55	32.5%	80	69.6%	246	37.3%
No sexual abuse	156	70.0%	108	71.1%	114	67.5%	35	30.4%	413	62.7%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=62.358$, $df=3$, $p<0.05$, Significant)

4:2:3:5 Petty Crimes

Petty crimes such as pick-pocketing are also mentioned. This type of crime occupies the middle cadre of crimes based on the proportion of respondents who mentioned it. With this type of crime just slightly above half of the respondents (54%) mentioned it. A comparison between the slums revealed a significant difference. While Korogocho had about 70% of its respondents mentioning it, Kibera had a paltry 37%. The other two slums had 65% and 56% for Mathare and Mukuru respectively. Table 4:27 shows the differentiation.

Table 4:27 Incidence of pick-pocketing across the slum settlements

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Pick-pocketing	83	37.2%	99	65.1%	94	55.6%	80	69.6%	356	54.0%
No pick-pocketing	140	62.8%	53	34.9%	75	44.4%	35	30.4%	303	46.0%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=44.259$, $df=3$, $p<0.05$, Significant)

Table 4:28 Overview of crime type differentials between slums

Crime category	Crime type	Analysis level	Decision rule
Substance abuse	Illicit brew	Between slum areas	No significant
	Drug abuse	Between slum areas	No significant
Violent crimes	Robbery with violence	Between slum areas	Significant difference
	General robbery	Between slum areas	Significant difference
	Murder	Between slum areas	Significant difference
	Mugging	Between slum areas	No significant
	Assault	Between slum areas	Significant difference
	Car jacking	Between slum areas	Significant difference
	Kidnapping	Between slum areas	Significant difference
Property crimes	Burglary	Between slum areas	No significant
	Arson attacks	Between slum areas	Significant difference
Sexual crimes	Sexual offences	Between slum areas	Significant difference
Petty crimes	Pick-pocketing	Between slum areas	Significant difference

In summary, the data suggests that there are particular crimes that are common between the slums. Illicit brew, drug abuse, mugging and burglary would be classified as common crimes that are experienced at the same level in the different slums. The rest of the crimes differ considerably between the slums. This is evidence that crime is experienced differently between the slums.

4:2:13 Crime trends and future expectations

In the back drop of asking about the respondents wider/community experiences (not necessarily individual), it was vital to obtain some perceptions about the current levels of crime and what they would expect in future. To achieve this end, two similar questions were posed to the respondents. One was about how

they felt about crime levels in the past one year and what their expectations were based on their own opinions in the coming year.

The results of crime trends in the last one year are presented in Table 4:28.

Table 4:29 Crime trends in the past year

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Increased	102	45.7%	37	24.3%	45	26.6%	23	20.0%	207	31.4%
Remained the same	33	14.8%	26	17.1%	40	23.7%	17	14.8%	116	17.6%
Decreased	84	37.7%	83	54.6%	64	37.9%	69	60.0%	300	45.5%
Don't know	4	1.8%	6	3.9%	20	11.8%	6	5.2%	36	5.5%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=60.04$, $df=9$, $p<0.05$, Significant)

About a third (31%) of all slum dwellers thought that there has been an increase in crime. Another 46% felt that crime had increased. The remaining 23% were split between those who said it remained the same (18%) and those who did not have any idea (5%). These perceptions also differ significantly between the slum areas. From the slum point of view, Kibera residents seem to feel that crime in the past year had increased. While only less than 30% of the residents in each of the slum said crime had increased in the past one year, Kibera had a majority of 46%. It was only in Kibera and Mukuru where the least proportion of residents (38%) indicated that crime had reduced. Figure 4.1 shows the distribution pictorially.

Figure 4:1. Current crime trends

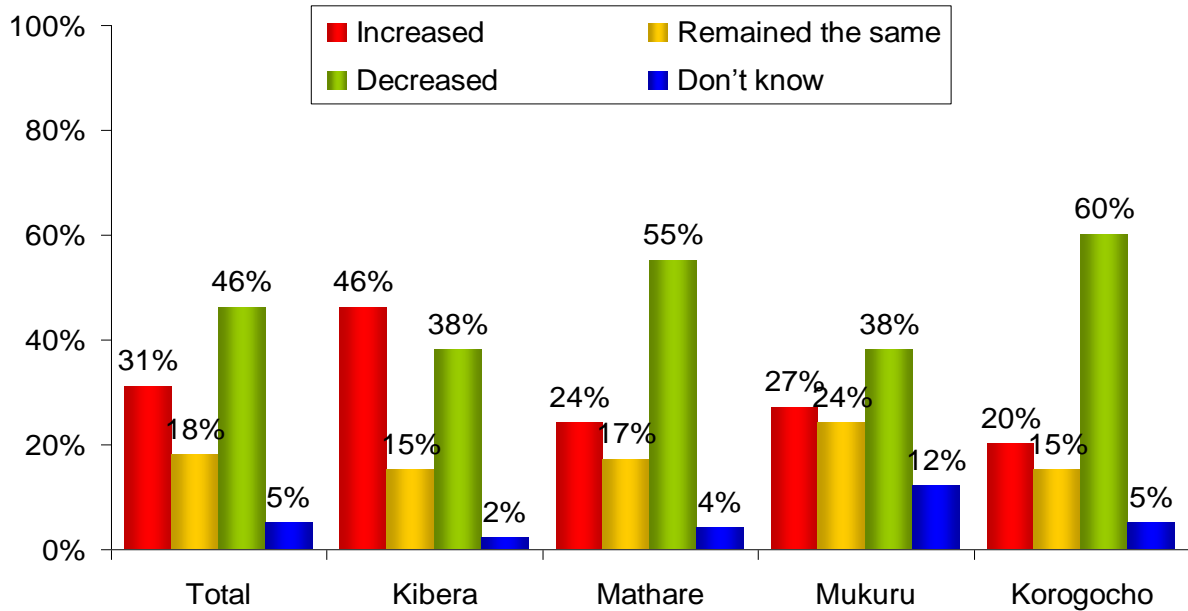


Table 4:30 shows the other side of the coin, i.e. future expectations of crime levels in the own slum localities.

Table 4:30. Future expectations of crime trends in the coming year

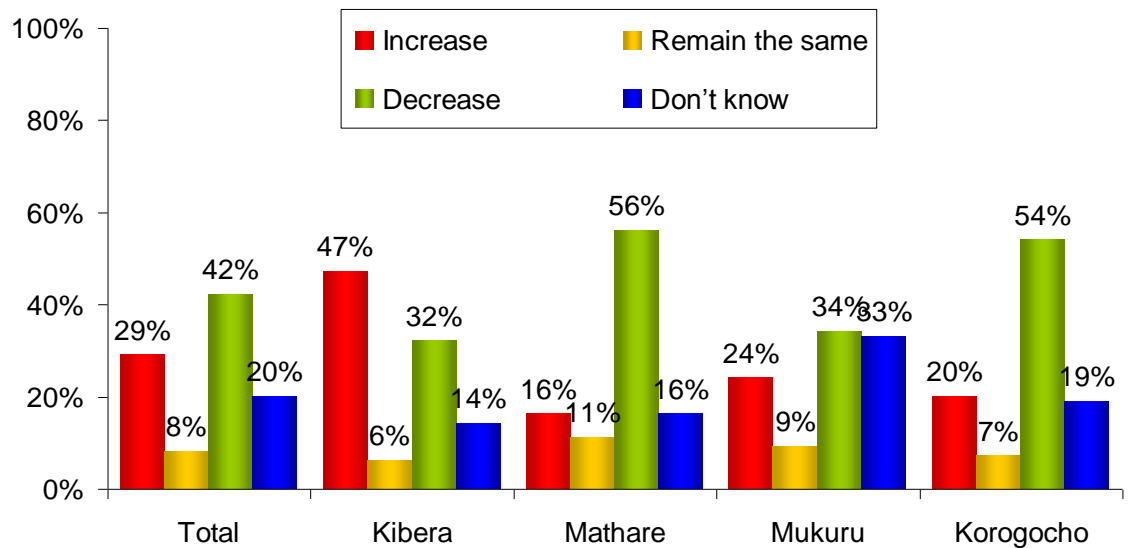
	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Increase	105	47.1%	25	16.4%	40	23.7%	23	20.0%	193	29.3%
Remain the same	14	6.3%	17	11.2%	16	9.5%	8	7.0%	55	8.3%
Decrease	72	32.3%	85	55.9%	57	33.7%	62	53.9%	276	41.9%
Don't know	32	14.3%	25	16.4%	56	33.1%	22	19.1%	135	20.5%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=78.342$, $df=9$, $p<0.05$, Significant)

As far as future expectations are concerned, the findings were marred with a higher proportion of uncertainty. Two in ten (20%) slum respondents were not sure of what their expectations were (Table 4:30). A majority had hopes that crime will reduce significantly in the coming year. This was attested by 42% of

the respondents. Slum differentiation in this aspect was evident. While the general trend is that the residents are optimistic that crime will reduce, it is vital to note that Kibera residents are the most pessimistic as far as future expectations of crime is concerned. 47% of Kibera residents indicated that they expect that crime would increase in the coming year. See Figure 4.2.

Figure 4.2. Future crime trends



A further cross tabulation analysis was done to investigate the relationship between how much previous perception of crime trends affects future perception. The general trend is that for those who felt that crime levels had been increased in the last one year, also felt that it is going to go on in the next year. The inverse is also true. This was felt across the board. However, there is a point at which Kibera slum residents have a different view. Out of those who said that crime levels either remained the same or decreased in the past year, a comparatively huge group of those from Kibera (32%) said that they expected the crime levels to increase in the near future. This figure is high compared to

the figures obtained from the same group having similar views from the other slum areas. In Mathare, only 6%, Mukuru 18% and Korogocho 11% shared similar views.

4:2:14 Causes of crime

The respondents were asked to mention in their own opinion what they would regard as the main causes of crime in their area. From the findings of this survey, three key causes were identified both from the quantitative and qualitative data. As seen from Table 4:31, high levels of youth unemployment, poverty, and indulgence in drugs were singled out as the main causes.

Table 4:31 Causes of crime

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Unemployment /Idleness	147	65.9%	91	59.9%	109	64.5%	55	47.8%	402	61.0%
Poverty	59	26.5%	54	35.5%	40	23.7%	30	26.1%	183	27.8%
Indulgence in illicit brew/drug abuse	17	7.6%	21	13.8%	23	13.6%	17	14.8%	78	11.8%
Other reasons	26	11.7%	28	18.4%	37	21.9%	21	18.3%	112	17.0%
No reason provided	9	4.0%	11	7.2%	6	3.6%	14	12.2%	40	6.1%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

4:2:15 High levels of youth unemployment

Topping the list was the issue of high levels of unemployment among the youth (61%). This was attributed to the fact that most youth have finished or dropped out of school and with no gainful employment; therefore they resort to criminal activities to make a living. Initial findings from this survey indicated that at least 62% of the slum residents did not have any sort of permanent or well

paying employment. Comparatively, the same reason was given in all the slums at the same overall percentage of 60% and above save for Korogocho slum dwellers who only 48% attributed the crime levels to unemployment. The same issue was raised in the FGDs. [Focus group Discussion], for example in Kibera, one respondent said;

“One of the reasons for crime is total idleness..... you find that, if you are not employed...you find some people they are just there, they are just there doing nothing...so, when they are just there, they just do the thinking, they are defeated on what to do [don't have anything to do, so they engage in criminal activities]” [Kibera FGD, Men].

While in Mukuru, another respondent also said;

“...unemployment also brings about cases of theft that you have heard about, mobile phones, stoves...yes, they are jobless, they steal your phone and sell it so that they can be able to pay rent” [Mukuru, Women FGD].

4:2:16 Poverty

The lack of basic needs and low levels of income are characteristics of slum dwellers. Slum dwellers have variously been referred to as the urban poor.

These low levels of poverty have been associated with high criminal activities in the slum areas. From the findings of this study, 28% of the slum dwellers mentioned poverty as one of the motivations for crime. When a comparison is made between the different slum localities, Mathare residents show a higher propensity to mention poverty (36%) compared to 24%-26% for the other slums. The aspect of poverty as a cause of crime was also reiterated in the FGDs. In the words of one informant:

“...am saying that if you don't actually receive all the necessities in life, due to poverty, like you lack almost everything, the solution could be crime,..." [Kibera FGD, Men].

4:2:17 Illicit brew and drug abuse

Even though from this study, illicit brew was mentioned to be the most prevalent crime, it was also mentioned to be a key contributor (12%) to crime scenario in the slum areas. The respondents feel that there is an association between drugs abuse and crime. First, the claim that most criminals operate under the influence of some drugs to accomplish their crimes. According to Mushanga (1988), drunkenness plays a leading role in the genesis of criminal acts and deviant behaviour. Secondly, some drugs are expensive to buy and this drives, especially the youth to engage in criminal activities to get money to buy the drugs. When comparing the different slums, Mathare, Mukuru and Korogocho have about 15% mentions of illicit brew and drugs as a cause of crime; Kibera has about half of that (8%). This differential is probably explained by the fact that earlier in the study, we found out that Kibera slums showed very low levels (27%) of illicit brew as a spontaneously mentioned crime. In the Korogocho FGD, one respondent said:

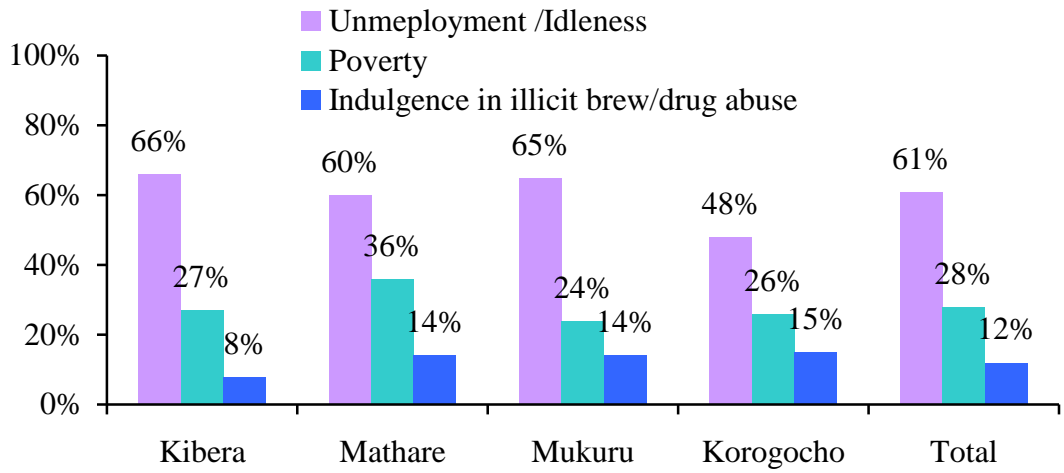
“...even if a man is educated, when he starts taking drugs, he can't do any work,..." [Korogocho FGD, Women].

While another also said;

“...drugs are expensive; in order for one to be able to purchase that drug...they will have to steal an item, sell it then purchase the drug...” [Mathare FGD, Men].

Other mentioned causes of crime included, greed for other people's property, peer pressure, limited crime control by police and community. Availability of small arms, Lack of lights, vigilante groups and militia, slums are convenient hideouts for criminals, local tribal politics and illiteracy.

Figure 4:3. Causes of crime



4.3 DIFFERENTIAL CHARACTERISTICS OF NAIROBI SLUM CRIME VICTIMS AND ASSOCIATED VULNERABILITY

A second objective of this study was to understand and discuss the demographic characteristics of victims of crime in the slum areas as a way of measuring those population groups most vulnerable to crime. According to Siegel (1995), social and demographic characteristics are key dependent factors for crime victimization. Therefore, it has been shown that some crimes affect people of one demographic characteristic than others. For instance, Siegel (1995), shows that males are more prone to violent crimes than females, while females are more likely to be attacked by relatives. Essentially, in this chapter following hypothesis the following hypothesis is tested;

Hypothesis 3: The probability of being victimised or being vulnerable to crime is similar across the different slums and across the different demographics profiles within those slums

Such kind of knowledge is vital in determining which vulnerable groups to crime victimization exist in a society. This section examines vulnerable groups as far as crime victims are concerned in the slum areas.

4:3:1 Slum crime victimization differentials

A question was posed to the respondents as follows, “Have you personally been a victim of any form of crime in the past one year?”

The data from this study suggests that 44.3% of adults in the slum areas have been victims of crime in the past one year.

Table 4:32. Crime victimization in the past year

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Victimised	76	34.1%	68	44.7%	81	47.9%	67	58.3%	292	44.3%
Not victimised	147	65.9%	84	55.3%	88	52.1%	48	41.7%	367	55.7%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=19.435$, $df=3$, $p<0.05$, Significant)

As far as the victimization levels in the different slum areas are concerned, there is a significant variation as seen in table 4.32. A further calculation on the propensities departing from the overall average shows that Korogocho slum has a 32% higher propensity than overall average (44.3%) to have a victim of any form of crime. In Kibera there is a 23% lower than average propensity for anyone to be a victim of any form of crime. It is only in Korogocho that over half of the residents have been victims of some form of crime within one year before the date of data collection of this project. By any standards, these victimization levels are high.

4:3:2 Demographic and Socio-economic profile of slum crime victims

This section deals with the demographic and socio-economic profile of slum crime victims in the City of Nairobi. The analytical approach provides data tables with a filter of only those who were victimised and comparing this across the slum areas in a bid to explore the differentials between the crime victims' characteristics. This analysis seeks to answer the question, what are the characteristics of slum crime victims?

4:3:3:1 Gender profile of slum crime victims

Table 4:33 Gender profile

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Male	42	55.3%	36	52.9%	49	60.5%	34	50.7%	161	55.1%
Female	34	44.7%	32	47.1%	32	39.5%	33	49.3%	131	44.9%
Total	76	100%	68	100%	81	100%	67	100%	292	100%

($\chi^2 = 1.595$, df = 3, $p > 0.661$, Not significant)

Table 4:33 shows that overall those who claimed to have been victims were more male than females (55% compared to 45% respectively). Korogocho and Mathare show an almost even balance between the genders. Mukuru crime victims are skewed towards the male since 6 out of 10 victims were male, the rest were of course females. Inferentially speaking there was no statistical difference between gender profiles of victims across the slums.

4:3:3:2 Education level profile of slum crime victims

Table 4:34 Education level profile

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
No education/Primary	21	27.6%	36	52.9%	18	22.2%	28	41.8%	103	35.3%
Secondary	45	59.2%	25	36.8%	48	59.3%	27	40.3%	145	49.7%
Post-secondary	10	13.2%	7	10.3%	15	18.5%	12	17.9%	44	15.1%
Total	76	100%	68	100%	81	100%	67	100%	292	100%

($\chi^2 = 20.564$, df = 6, $p < 0.05$, Significant)

The data reveals that about a half (49.7%) of the victims had secondary school education. This may be simply due to the fact that in the sample, those who have secondary education were the majority. A significant difference was detected by the Chi-Square results. Mathare and Korogocho exhibit unique profiles. Most of the victims in Mathare had the lowest level of education while

in Korogocho, there is an almost equal split between No education/Primary and Secondary education each at about 40%.

4:3:3:3 Employment status profiles of slum crime victims

Table 4:35 Employment status profile

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Unemployed	26	34.2%	15	22.1%	20	24.7%	12	17.9%	73	25.0%
Employed part time/Casual	28	36.8%	29	42.6%	25	30.9%	24	35.8%	106	36.3%
Employed full time	8	10.5%	5	7.4%	11	13.6%	10	14.9%	34	11.6%
Self employed	14	18.4%	19	27.9%	25	30.9%	21	31.3%	79	27.1%
Total	76	100%	68	100%	81	100%	67	100%	292	100%

($\chi^2 = 10.630$, df =9, p>0.05, Not Significant)

As table 4:35 descriptively shows, most of the crime victims were employed as part time or casual workers. However, there was no significant difference between the different slum areas.

4:3:3:4 Age group profiles of slum crime victims

The study also sought to confirm whether there was a crime victim age differentiation between the slums. Table 4:36 shows the results.

Table4:36 Age group profiles

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
18-24	26	34.2%	12	17.6%	20	24.7%	26	38.8%	84	28.8%
25-34	32	42.1%	30	44.1%	44	54.3%	24	35.8%	130	44.5%
35-44	10	13.2%	15	22.1%	13	16.0%	10	14.9%	48	16.4%
45+	8	10.5%	11	16.2%	4	4.9%	7	10.4%	30	10.3%
Total	76	100%	68	100%	81	100%	67	100%	292	100%

($\chi^2 = 15.971$, df =9, p>0.05, Not Significant)

Most of those who claimed to have been victims of crime were between 25 and 34 years of age (45%). The pattern was similar across the different slums thus there was no significant difference detected. However it is vital to note

descriptively that, Korogocho had almost a similar split between those aged 18 to 24 and 25 to 34 years of age.

4:3:3:5 Wealth quintiles profiles of slum crime victims

Another variable that was used to profile the crime victims was based on levels of affluence. Table 4:37 shows the frequency distribution.

Table 4:37 Wealth quintiles profiles

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Lowest	15	19.7%	23	33.8%	8	9.9%	19	28.4%	65	22.3%
Fourth	18	23.7%	13	19.1%	18	22.2%	13	19.4%	62	21.2%
Third	10	13.2%	9	13.2%	20	24.7%	12	17.9%	51	17.5%
Second	23	30.3%	7	10.3%	10	12.3%	7	10.4%	47	16.1%
Highest	10	13.2%	16	23.5%	25	30.9%	16	23.9%	67	22.9%
Total	76	100%	68	100%	81	100%	67	100%	292	100%

($\chi^2 = 33.793$, $df = 12$, $p < 0.01$, Significant)

Typically, every level of affluence has got its own share of crime victims. This almost typifies the population wealth quintiles where each quintile is assigned 20% of the sample. However, it seems that the lowest and the highest quintiles had the same share of victims at about 22% each. The second highest quintile had the least fraction of the victims at 16%. A Chi-square test revealed a statistical differentiation between the slums. To illustrate this point, Mukuru seems to be standing out from the other slums. This is exemplified by the fact that as far as the lowest quintile is concerned, only 10% of its residents who occupy this class were victims. Compared across the slums, this group had half of its closest rival Kibera which had about 20% of this group.

4:3:4 An analysis into crime victimization vulnerability

In analysing crime victimization vulnerability, the analysis is based on two broad categories of the respondent characteristics. These are the demographic characteristics that include gender and age, and the socio-economic characteristics that include level of education, employment status and income quartiles.

Vulnerability analysis seeks to answer the question, which demographic and socio-economic groups have the highest risk of becoming crime victims. In this analysis, column percentages within each characteristic group e.g. Kibera, Mathare, Mukuru or Korogocho or Male or female (gender) are used. The column percent provides the probability that an individual in a particular group is likely to be a victim of crime. These probabilities of victimization are then compared across each other. Groups with higher probabilities than others are considered more vulnerable.

4:3:4:1 Demographic bases for crime victimization

4:3:4:1:1 Gender bases for crime victimization

Even though other studies have shown a significant differentiation between victimization levels by gender, findings of the study indicate that there is not much difference in the victimization levels between the males and females for slum dwellers as seen in Table 4.38. A female is more likely to be a victim of crime just as a male is in the slum areas of Nairobi.

Table 4:38. Crime victimization in the past year by gender

	Male		Female		Total	
	Count	%	Count	%	Count	%
Victimised	161	46.3%	131	42.1%	292	44.3%
Not Victimised	187	53.7%	180	57.9%	367	55.7%
Total	348	100.0%	311	100.0%	659	100.0%

($\chi^2 = 0.980$, df = 1, p<0.322, Not significant)

A further look at the crime victimization by gender between the slums show that generally, males are slightly more likely to be victims of crime than females in all slums save for Mathare. The data suggests a slightly higher victimization rate among the Mathare females (49%) than among the males (41%).

4:3:4:1:2 Age bases for crime victimization

Age is another important demographic characteristic that determines crime victimization. Previous studies have shown that younger people are more prone to victimizations because of lifestyle patterns [Kibuka, 1979:13-23]. However, the findings from this study indicate that as one gets older in the slums, the chances of getting victimized get higher. However the difference the age groups were not statistically significant.

Table 4:39. Crime victimization in the past year by age

	18-24 years		25-34 years		35-44 years		45+		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Victimised	84	38.2%	130	45.9%	48	49.0%	30	51.7%	292	44.3%
Not Victimised	136	61.8%	153	54.1%	50	51.0%	28	48.3%	367	55.7%
Total	220	100.0%	283	100.0%	98	100.0%	58	100.0%	659	100.0%

($\chi^2 = 5.810$, df =3, p<0.121, Not significant)

One explanation could be that the younger people have established their own networks such they the have associations with the criminals. For example most of them might have schooled together and thus they know each other. Therefore, the chances of the young criminals attacking those of their age are lower.

Even though evidence reveals that older people suffer a big chance of being crime victims save for Mukuru slums where those aged 25-34 years have a bigger chance of being crime victims, there were no statistically significant differences in victimization and age among the four slums studied.

4:3:4:2 Socio-economic bases for crime victimization

4:3:4:2:1 Education bases for crime victimization

An analysis of the highest level of education as a dependent variable for crime victimization for slum settlers' shows very little variation. Even though other studies have shown some similarities this one shows no variation at all as seen in table 4.40.

Table 4:40. Crime victimization in the past year by highest level of education

	No education/Primary		Secondary		Post-secondary		Total	
	Count	%	Count	%	Count	%	Count	%
Victimised	103	44.2%	145	44.9%	44	42.7%	292	44.3%
Not victimised	130	55.8%	178	55.1%	59	57.3%	367	55.7%
Total	233	100.0%	323	100.0%	103	100.0%	659	100.0%

($\chi^2=0.151$, $df=2$, $p<0.927$) not significant

As far as the variation in the slums is concerned, slight variations can be identified between the slums. For example, table 4.40 shows that Mukuru slums have the least variation, followed by Kibera. However in Mathare, residents with lower educational levels seem to be more vulnerable to crime, while in Korogocho, Those with higher education levels seem to be more vulnerable to crime.

4:3:4:2:2 Employment status by crime victimization

The findings from this study indicate that those who are unemployed or are employed in casual labour have a lower chance (between 39% and 41%) of getting victimized compared to their counterparts who are either employed full-time or are self employed (between 51% and 54%). Further results are detailed in table 4.19. The general reason for this observed behaviour is that those who are employed full-time or self employed occupy higher social status than the rest of the residents making them easy targets for crime such as burglary and robbery.

Table 4:41 Crime victimization in the past year by employment status

	Unemployed		Employed casual labourer		Employed part-time		Employed full-time		Self employed		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Victimised	65	39.9%	81	40.1%	25	45.5%	34	54.0%	79	51.3%	284	44.6%
Not Victimised	98	60.1%	121	59.9%	30	54.5%	29	46.0%	75	48.7%	353	55.4%
Total	163	100.0%	202	100.0%	55	100.0%	63	100.0%	154	100.0%	637	100.0%

($\chi^2=8.172$, $df=4$, $p<0.05$, Significant)

As far as the slum differentials are concerned, Kibera slum show very little differences between the different employment statuses as seen in table 4.41. The rest of the slums showed marked difference between the employment status dichotomies as observed earlier on.

4:3:4:2:3 Income quintiles bases for crime victimization

This study also attempted to find out if there was any specific relationship between an individual's level of affluence and crime victimization. Measured by the wealth quintiles, the data suggests that, the incidence of crime victimization is higher in the lowest and the highest quintiles (About 50% each). This difference is statistically significant as shown in table 4.42. The rest of the middle quintiles have less than half of their respondents claiming any victimization.

Table 4:42. Crime victimization in the past year by wealth quintiles

	Lowest		Fourth		Third		Second		Highest		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Victimised	65	49.6%	62	46.6%	51	39.5%	47	34.8%	67	51.1%	292	44.3%
Not Victimised	66	50.4%	71	53.4%	78	60.5%	88	65.2%	64	48.9%	367	55.7%
Total	131	100.0%	133	100.0%	129	100.0%	135	100.0%	131	100.0%	659	100.0%

($\chi^2=10.387$, $df=4$, $p<0.05$, Significant)

Between the slum areas, the most affluent are victimized more than the others (table 4.42). In Mathare, the lowest and the highest are victims of criminal attacks more than the rest of the quintiles. In Mukuru, victimization is found across all the quintiles, while in Korogocho, victimization is high in the lower quintiles of affluence.

Based on hypothesised possibilities of identifying vulnerable groups of crime in the slum areas, the proceedings of this study indicate that unlike other general population crime studies, no demographic variable would influence the profile of crime victims in slum areas. However, some socio-economic variables and especially the income quartiles and employment status would profile when all slum are looked into as a whole. However, for individual slums, socio-economic profiling of crime victims is a weak contributor to crime vulnerability assessments.

Summary

Hypothesis	Analysis level	Decision Rule
Crime victimization	between slum areas	Significant difference
Crime victimization	between slum areas and gender	Not significant
Crime victimization	between slum areas and age	Not significant
Crime victimization	between slum areas and education	Not significant
Crime victimization	between slum areas and employment status	Significant difference
Crime victimization	between slum areas and Income quartiles	Not significant

In as much as there are significant differences between the slums as far the incidence of crime victimization is concerned, this study has shown that unlike other studies where crime victimization can be profiled by demographics and socio-economic factors to establish vulnerability, such profiles are non-existent in the slum areas. Other methods of identifying vulnerable groups in the slum areas should be devised.

4.4 ATTITUDES AND PERCEPTIONS OF SAFETY AMONG SLUM DWELLERS OF THE CITY OF NAIROBI

The third objective describes the attitudes and perceptions of safety as experienced in the slums areas of Nairobi. Additionally in this section, the following hypothesis is tested.

Hypothesis 4: The perceptions of safety (safety attitudes) are similar across the four different slums

4.4.1 Perception of crime and safety in slum areas

The first way of addressing the issue of safety is by analysing the perception of whether crime is a serious problem in the slum areas. The respondents were asked to indicate the severity of crime in the slum areas. Responses were categorised as; “A big problem”, “A moderate problem”, “A small problem” or “No problem at all”, Table 4.43 shows the results obtained from this question.

Table 4:43 Perceptions of crime in slums

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
A big problem	121	54.3%	56	36.8%	84	49.7%	51	44.3%	312	47.3%
A moderate problem	62	27.8%	57	37.5%	64	37.9%	50	43.5%	233	35.4%
A small problem	35	15.7%	37	24.3%	17	10.1%	12	10.4%	101	15.3%
No problem at all	4	1.8%	1	0.7%	4	2.4%	2	1.7%	11	1.7%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=28.484$, $df=9$, $p<0.05$, Significant)

Almost half of the slum residents indicated that crime is a big problem in their area. However, Kibera residents (54%) more than colleagues in the other slums cited crime to be a very big problem. According to table 4.44 there is

significant variation between the slums as far as perceptions of the severity of crime is concerned.

4.4.2 Fear of crime

Secondly, another dimension of assessing safety perceptions relates to personal feelings regarding the fear of crime. The respondents were posed with these questions:

“To what extent do you fear all kinds of crime in this area?” and
 “Would you say it is a great deal, a fair amount, not very much or not at all”

Table 4:44. Extent of fear of crime

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
A great deal	150	67.3%	72	47.4%	87	51.5%	64	55.7%	373	56.6%
A fair amount	38	17.0%	57	37.5%	44	26.0%	28	24.3%	167	25.3%
Not very much	28	12.6%	18	11.8%	28	16.6%	16	13.9%	90	13.7%
Not at all	6	2.7%	5	3.3%	7	4.1%	7	6.1%	25	3.8%
Don't know	1	0.4%	0	0.0%	3	1.8%	0	0.0%	4	0.6%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=32.175$, $df=12$, $p=0.001$, Significant)

A substantial proportion of slum residents (57%) indicated overwhelming fear of crime victimization. More precisely, about eight in ten (82%) slum dwellers have some form of fear of crime. As far as this fear of crime is realized across the slum areas, there is a significant difference as shown in Table 4.44. Kibera slum in particular had the highest fear of crime (67%). The rest of the slums had just barely about or slightly more than a half of its residents fearing crime.

The fear of crime is mainly caused by several factors. The assumption here is that the demographic characteristics of slum residents would explain the differences in the fear of crime. The data suggests that the fear of crime is not at all associated with any demographic characteristics. Table 4.45 shows a summary of the Chi-square results and their associated p-values.

Table 4:45. Fear of crime by demographic variables

Demographic	χ^2 – value	DF	p-value	Decision
Gender	0.030	4	1.000	Not significant
Age	19.999	24	0.697	Not significant
Education level	20.071	28	0.862	Not significant
Employment status	26.910	24	0.390	Not significant
Income quartiles	16.551	16	0.415	Not significant

To search for explanations, the fear of crime variable was cross-tabulated with other variables in the questionnaire to explore meaningful associations.

First, the data suggest that experience with crime itself is a key cause of feelings of insecurity in slum areas. The data from the Table 4.46 shows that those who have ever been victimized have a higher fear of crime (65%) than those who had not been victimized (50%).

Table 4:46. Extent of fear of crime by crime victimization

	Victimised		Not Victimised		Total	
	Count	%	Count	%	Count	%
A great deal	190	65.1%	183	49.9%	373	56.6%
A fair amount	60	20.5%	107	29.2%	167	25.3%
Not very much	33	11.3%	57	15.5%	90	13.7%
Not at all	9	3.1%	16	4.4%	25	3.8%
Don't know	0	0.0%	4	1.1%	4	0.6%
Total	292	100.0%	367	100.0%	659	100.0%

($\chi^2=30.106$, $df=4$, $p<0.001$, Significant)

Another obvious reason of driving feelings of safety is the crime profile of an area. Counting the different types of crime recorded by each respondent an analysis performed. The total number of crimes was grouped into four classes as shown in Table 4.47. The data also suggests that residents in areas where more crimes were mentioned had a lower feeling of safety. The more crimes recorded, the higher the feeling of insecurity. Singling out the 'great deal' fear of crime, it is evident, as results in Table 4.47 that this figure increases with the increase in the number of crimes mentioned.

Table 4:47. Extent of fear of crime by frequency of crimes noted

	5 crimes and below		6-8 crimes		9-10 crimes		11 crimes and above	
	Count	%	Count	%	Count	%	Count	%
A great deal	25	32.5%	169	54.5%	127	63.5%	52	72.2%
A fair amount	25	32.5%	85	27.4%	45	22.5%	12	16.7%
Not very much	21	27.3%	44	14.2%	18	9.0%	7	9.7%
Not at all	5	6.5%	10	3.2%	9	4.5%	1	1.4%
Refused	1	1.3%	2	0.6%	1	0.5%	0	0.0%
Total	77	100.0%	310	100.0%	200	100.0%	72	100.0%

($\chi^2=36.496$, $df=12$, $p<0.001$, significant)

Perceptions of crime trends are yet another key factor behind the fear of crime. The table 4.48 shows that only 57% of the slum residents fear crime a great deal and majority (80%) think that crime has increased fear crime a great deal.

The “great deal” fear of crime is almost half (44%) for those who felt that crime incidences have reduced.

Table 4:48. Extent of fear of crime by perceptions of crime trends

	Increased		Remained the same		Decreased		Refused		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
A great deal	166	80.2%	62	53.4%	131	43.7%	14	38.9%	373	56.6%
A fair amount	25	12.1%	30	25.9%	101	33.7%	11	30.6%	167	25.3%
Not very much	11	5.3%	20	17.2%	50	16.7%	9	25.0%	90	13.7%
Not at all	4	1.9%	3	2.6%	17	5.7%	1	2.8%	25	3.8%
Don't know	1	0.5%	1	0.9%	1	0.3%	1	2.8%	4	0.6%
Total	207	100.0%	116	100.0%	300	100.0%	36	100.0%	659	100.0%

($\chi^2=19.280$, $df=12$, $p<0.082$, Not significant)

4.4.3 Safety Perception Index (SPI)

The third dimension of assessing safety issues differences between the slums is by computing a Safety Perception Index (SPI). To achieve this index, a 5-point Likert rating question was used as follows;

“How safe do you feel you are in this area? Do you feel completely safe, Slightly safe, Neither safe nor unsafe, Slightly unsafe or Completely unsafe?”

Table 4.49 shows the results of this question.

Table 4:49. Feelings of safety and Safety Perception Index

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Completely safe	17	7.6%	28	18.4%	22	13.0%	11	9.6%	78	11.8%
Slightly safe	87	39.0%	47	30.9%	62	36.7%	31	27.0%	227	34.4%
Neither safe nor unsafe	29	13.0%	45	29.6%	42	24.9%	31	27.0%	147	22.3%
Slightly unsafe	35	15.7%	13	8.6%	12	7.1%	21	18.3%	81	12.3%
Completely unsafe	55	24.7%	19	12.5%	26	15.4%	18	15.7%	118	17.9%
Refused	0	0.0%	0	0.0%	5	3.0%	3	2.6%	8	1.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=58.112$, $df=15$, $p<0.001$, Significant)

To achieve the SPI, the above questions options were weighted as follows:

Completely safe : 100

Slightly safe	: 75
Neither safe nor unsafe	: 50
Slightly unsafe	: 25
Completely unsafe	: 0

The following weighting has been used in other economic indexes devised by the Conference Board⁵. Once the data was weighted as such, it was then averaged to compute the index. Generally the values of the index based on the weighting would varied between 0 (Completely unsafe) and 100 (Completely safe). It should be noted that this score is not a proportion but a rating.

The findings from this index construction indicate that the safety perception is halfway that is moderate (51.9). However, there is a significant difference between the different slum areas ($F=4.680$, $df=3$, $p=0.003$). Generally, Kibera and Korogocho residents have lower feelings of safety (SPI= 47.31 and 47.83 respectively) than their counter parts in Mathare and Mukuru (SPI= 58.55 and 54.73 respectively).

A full demographic profiling of the SPI as presented in Table 4.50 clearly shows that safety perception varies considerably between different groups of slum dwellers in each slum.

⁵ <http://www.investopedia.com/university/conferenceboard/conferenceboard6.asp>

Table 4:50. Safety Perception Index by demographic variables

	Total	Kibera	Mathare	Mukuru	Korogocho
Total	51.9	47.3	58.6	54.7	47.8
Gender					
Male	52.7	45.9	56.0	61.1	47.6
Female	51.0	48.8	61.9	47.1	48.0
Age					
18-24 years	52.5	48.5	59.7	58.3	47.9
25-34 years	53.2	47.6	60.8	53.1	53.6
35-44 years	46.2	36.0	54.0	50.0	39.3
45+	53.0	55.3	55.6	62.5	36.4
Highest level of education					
No education/Primary	50.4	46.6	54.2	47.3	51.9
Secondary	53.7	47.0	66.5	58.4	46.7
Post-secondary	49.5	50.0	54.5	51.6	38.9
Wealth quintiles					
Lowest	48.7	43.6	52.7	44.6	50.8
Fourth	47.6	47.8	63.4	39.9	39.8
Third	52.3	46.4	64.0	53.1	48.9
Second	55.0	48.3	67.1	64.6	56.9
Highest	55.9	51.1	53.8	64.4	43.2
Job status					
Unemployed	52.7	50.0	57.1	48.8	60.3
Employed part time/Casual	52.0	44.1	60.4	56.2	47.0
Employed full time	52.0	53.6	58.9	56.9	30.0
Self employed	50.6	45.3	56.1	57.4	43.4
Monthly income estimate					
Kshs.3000.00 and below	53.2	45.8	58.3	52.9	49.4
Between Kshs. 3000 and 7000.00	51.0	45.8	58.9	55.4	35.2
Kshs. 7000 and below	54.5	51.0	65.0	63.0	25.0
Marital Status					
Single	52.0	47.5	56.3	54.9	51.6
Married	51.2	46.9	58.8	54.9	44.3
Divorced/Seperated/Widowed	55.6	50.0	63.8	52.3	50.0

Several key points can be seen from Table 4.50. Significance testing on the means of the Safety Perception Index was done across all the independent variables in Table 4.50. The results did not show any significant differences between all the independent variables. This clearly suggests that the only

source of differentiation in the Safety Perception Index at the slum level only as shown.

4.4.4 Safety perception attitudes and resultant dimensions

In a bid to investigate further the requirements of third objective, several in-depth analyses were done on the safety attributes questions. These include the understanding of the underlying dimensions of safety and segmenting the slum population into safety clusters.

4.4.4.1 Attitudinal perceptions towards perceptions of safety

As far as safety issues are concerned, there exist different attitudes and perceptions. The main aim of this subsection is to explore the different attitudes and perceptions that exist in the slum population.

To achieve this end, the respondents were subjected to a battery of 20 scale items developed from a preliminary pilot study. The items were measured using a 5-point agree/disagree Likert scale. Strongly agree was weighted with 5 points while strongly disagree was weighted with 1 point. Table 4.51 shows the mean score in descending rank-order.

The table shows that there are varied degrees of their attitudes towards issues surrounding crime in their own localities.

Table 4.51: Attitudes towards safety (Mean Scores)

	Total	Kibera	Mathare	Mukuru	Korogocho
The police and the community can work together to prevent crime	4.7	4.8	4.7	4.6	4.8
Young people are involved in criminal activities	4.7	4.8	4.7	4.5	4.6
I think that my community needs more crime prevention programs	4.6	4.8	4.5	4.5	4.6
Community participation can help prevent crime	4.6	4.7	4.4	4.5	4.7
Poverty is the key cause of crime here	4.5	4.7	4.7	4.2	4.3
Men are the major criminals	4.4	4.5	4.3	4.4	4.3
I can contribute to help reduce crime	4.4	4.5	4.1	4.5	4.5
Women and children are the ones who suffer most from crime	4.3	4.5	4.6	4.0	4.1
Poor court judgement increases crime	4.2	3.7	4.3	4.7	4.5
Slum areas have more crime than other Non-slum areas	4.2	4.0	4.3	4.2	4.5
Crime is a big problem in this area	4.2	4.3	3.9	4.0	4.4
My neighbour cares for my safety as well	3.9	4.2	3.7	3.8	3.7
I discuss with my friends and neighbours about the crime situation	3.8	4.0	3.7	3.7	3.7
Even when I'm away, my neighbour takes care of my property	3.8	4.1	3.6	4.0	3.5
We are organized as a community to fight crime	3.5	3.5	3.4	3.3	3.7
Crime in this area is on the increase	3.3	3.6	3.0	3.3	3.0
Crime is high here because the government does nothing	3.3	3.8	2.9	3.0	3.0
I don't believe that it is possible to prevent people from committing crimes	2.4	2.7	2.5	2.3	2.1
Women are the major criminals	2.2	1.8	2.5	2.5	2.5
People here are not concerned about crime	2.2	1.9	2.5	2.2	2.4

4.4.4.2 Understanding the underlying dimension of safety statements

To take the analysis beyond the descriptive statistics, the data was subjected to a factor analytic approach. Factor analysis is a useful technique that is used for data reduction and to evaluate the structure of the data in a bid to expose new dimensions that would otherwise be difficult to achieve when using the descriptive statistics only. The resultant factors yield groups of attributes that are highly correlated among themselves and least correlated among attributes of different groups. In a nutshell, factor analysis maximizes intra-group homogeneity and inter-group heterogeneity.

An exploration into the initial factor solution yielded six factors. The Table 4.52 shows the initial solution. Ideally, each attribute also has a score (loading) for each of the component generated. However, the membership of each

attribute to each component is determined by the highest loading an attribute has across all dimensions. For example if attribute 1 has the highest loading for factor 1 than the rest of the factors, then that attribute was selected for factor 1 similarly for other attributes.

The initial solution was basically difficult to interpret because some single items constituted whole factors i.e. factor 4 and factor 6. Additionally some of the items grouped together were difficult to interpret and label as one group. For example, Factor 5 constituted items that would otherwise be grouped in other factors. To improve on the interpretation of the factor analysis, an oblique rotation of the factors was done. Oblique rotation is one of the many methods of rotating factors. It was selected for this analysis because it is used when the factors are likely to be related. Due to the fact that the items were all dealing with different aspects of safety in the slum areas, it would follow necessarily that the factors generated would be correlated. Table 4:52 shows the improved obliquely rotated factors. However a further investigation on the oblique rotation shows that factor 4 items have negative loadings which complicated interpretation.

As a final decision, was made to remove items “I think that my community needs more crime prevention programs” due to its low loadings on factor 1 and “I don’t believe that it is possible to prevent people from committing crimes” due to its grouping with “crime causes” factor. Therefore the final factor solution is presented in table 4:52.

Table 4:52. Initial Factor Analysis Solution

Component Matrix^a

	Component					
	1	2	3	4	5	6
Men are the major criminals	.519					
Even when I'm away, my neighbour takes care of my property	.491					
I think that my community needs more crime prevention programs	.489					
Young people are involved in criminal activities	.478					
I discuss with my friends and neighbours about the crime situation	.433					
Crime in this area is on the increase		.702				
Crime is a big problem in this area		.655				
Crime is high here because the government does nothing		.552				
My neighbour cares for my safety as well		-.482				
We are organized as a community to fight crime		-.467				
Slum areas have more crime than other Non-slum areas			.575			
People here are not concerned about crime			.483			
I don't believe that it is possible to prevent people from committing crimes			.444			
Community participation can help prevent crime			-.437			
The police and the community can work together to prevent crime				.401		
Poor court judgement increases crime					.549	
Women are the major criminals					.495	
Women and children are the ones who suffer most from crime					-.377	
I can contribute to help reduce crime					.315	
Poverty is the key cause of crime here						.499

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

Table 4:53. Factor Analysis Solution with Oblique Rotation

Structure Matrix

	Component					
	1	2	3	4	5	6
Community participation can help prevent crime	.755					
The police and the community can work together to prevent crime	.675					
I can contribute to help reduce crime	.517					
Crime in this area is on the increase		.820				
Crime is high here because the government does nothing		.732				
Crime is a big problem in this area		.694				
I don't believe that it is possible to prevent people from committing crimes		.348				
Poor court judgement increases crime			.763			
People here are not concerned about crime			.597			
Slum areas have more crime than other Non-slum areas			.582			
My neighbour cares for my safety as well				-.755		
Even when I'm away, my neighbour takes care of my property				-.672		
We are organized as a community to fight crime				-.637		
I discuss with my friends and neighbours about the crime situation				-.598		
Women are the major criminals					.680	
Men are the major criminals					-.657	
Women and children are the ones who suffer most from crime					-.576	
Poverty is the key cause of crime here						.684
Young people are involved in criminal activities						.660
I think that my community needs more crime prevention programs						.546

Extraction Method: Principal Component Analysis.
 Rotation Method: Oblimin with Kaiser Normalization.

Table 4:54. Final Factor Analysis Solution with Varimax Rotation

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
My neighbour cares for my safety as well	.791					
Even when I'm away, my neighbour takes care of my property	.693					
We are organized as a community to fight crime	.612					
I discuss with my friends and neighbours about the crime situation	.589					
Crime in this area is on the increase		.836				
Crime is a big problem in this area		.718				
Crime is high here because the government does nothing		.717				
Women are the major criminals			-.670			
Men are the major criminals			.659			
Women and children are the ones who suffer most from crime			.561			
Community participation can help prevent crime				.788		
The police and the community can work together to prevent crime				.680		
I can contribute to help reduce crime				.526		
Poor court judgement increases crime					.772	
People here are not concerned about crime					.595	
Slum areas have more crime than other Non-slum areas					.594	
Poverty is the key cause of crime here						.709
Young people are involved in criminal activities						.576

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

By looking at the final factor analysis solution, the following factors were labeled as follows:

Factor1: Neighbour Support factor consisting of:

- My neighbour cares for my safety as well
- Even when I'm away, my neighbour takes care of my property
- We are organized as a community to fight crime
- I discuss with my friends and neighbours about the crime situation

Factor2: Crime Salience factor consisting of:

- Crime in this area is on the increase
- Crime is a big problem in this area
- Crime is high here because the government does nothing

Factor3: Gender factor in crime consisting of:

- Women are the major criminals
- Men are the major criminals
- Women and children are the ones who suffer most from crime

Factor4: Crime Prevention Strategies factor consisting of:

- Community participation can help prevent crime
- The police and the community can work together to prevent crime
- I can contribute to help reduce crime

Factor5: Crime Neglect factor consisting of :

- Poor court judgement increases crime
- People here are not concerned about crime
- Slum areas have more crime than other Non-slum areas and

Factor6: Deprivation Causes of Crime factor consisting of:

- Poverty is the key cause of crime here
- Young people are involved in criminal activities

Therefore in summary, it can be deduced that as far as safety perceptions are concerned in the slum areas, it is conceptualized in terms of how the community has organized itself to tackle the issue of crime by using local support mechanisms. This is the mainstay of the social disorganization theory. Perception of crime trends in the slum areas which is explained the Anomie theory. There are the gender dimensions in crime, crime prevention strategies, institutional failure in dealing with crime and causes of crime in the slum areas.

In order to provide an analysis across the slums as far as the factors are concerned. A separate factor analysis for each slum would be an arduous task. Therefore, a segmentation approach was used to enable cross-comparisons between the slums. The next subsection deals with this issue.

4.4.4.3 A segmentation of the slum population based on safety and perception attitudes

The segmentation approach is described as follows:

When a factor analysis procedure is carried out, each respondent gets an individual score for each factor generated. When these factor scores are examined across each respondent, it is possible to see which score out of the four factor scores generated is the highest for each respondent. This provides a way of grouping the respondents into groups or segments. For example if respondent one has the highest score for factor2 than the rest of the four factors, the respondent was classified as being a member of factor2 and so on. Therefore, each respondent can only be assigned only one factor for which he/she has the highest loading. This means that since each respondent belongs to only one slum, it is possible to compare these segments across the slums as a way of checking the safety perceptions dimensions across the slums. The following table 4:55 shows the naming of the segments.

Table 4:55: Naming of the segments

Factor Segment
Neighbour Support Segment
Crime Salience Segment
Gender Segment
Crime Prevention Strategies Segment
Crime Neglect Segment
Deprivation Causes Segment

The following table 4:56 shows the results of the segments by each slum area.

Table 4:56 Results generated by Slum areas

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Neighbour Support Segment	56	25.1%	22	14.5%	43	25.4%	16	13.9%	137	20.8%
Crime Salience Segment	38	17.0%	21	13.8%	30	17.8%	13	11.3%	102	15.5%
Gender Segment	73	32.7%	26	17.1%	21	12.4%	9	7.8%	129	19.6%
Crime Prevention Strategies Segment	23	10.3%	12	7.9%	32	18.9%	31	27.0%	98	14.9%
Crime Neglect Segment	13	5.8%	32	21.1%	26	15.4%	26	22.6%	97	14.7%
Deprivation Causes Segment	20	9.0%	39	25.7%	17	10.1%	20	17.4%	96	14.6%
Total	223	100%	152	100%	169	100%	115	100%	659	100%

($\chi^2=107.414$, $df=15$, $p<0.05$, Significant)

The segmentation approach provided segments sizes as shown in the total column of table 4:57.

The safety segments provide a measure of the key attitudes the respondents have as far as crime and safety are concern. As such, depending on the key

altitude it provides a way of establishing what it that drives the feeling of safety.

- Neighbor support segments indicate that for the realization of safety it is vital to have loyal and trusted neighbors who will voluntarily provide security to each other without reference to other external security apparatus
- Crime salience segment feel that their safety is begged in what is currently happening on the ground as far as crime is concern. With reports of criminal activities in the area, the less safe they will feel.
- Gender segment are those that are inclined towards demographic aspects of crime. They feel that if the population and community consist of particular demographics such as women or men, then the rise of crime is higher.
- Crime prevention segment would want to see practical efforts to curb crime in the community. They feel that for safety t be achieved as interdisciplinary group of stakeholders i.e. the police, provincial government and the community should be in a position to guarantee safety through prevention mechanism. They are believes of community policing initiatives.
- Crime neglect segment, feel that the root causes of crime must be dealt with if safety is to be achieved. They believe if the justice system does

not rule out punitive measures to perpetrators of crime all other efforts to curb crime would be ineffective.

- Deprivation cause segment also believe that economic difficulties contribute immensely to crime levels. As such by empowering the youth economically, crime problems and level will be reduced.

The table further reveals that Kibera residents are more close towards “*Neighbour Support*” (25%) and “*Gender*” segments(33%). On the other hand Mathare is more towards “*Crime Neglect Segment*” (21%) and “*Deprivation Causes Segment*” (26%). Mukuru is more towards “*Neighbour Support*” (25%) just like Kibera and “*Crime Prevention Strategies Segment*” (19%). Finally, Korogocho is more towards “*Crime Prevention Strategies Segment*” (27%) and “*Crime Neglect Segment*” (23%). A Chi-Square test reveals that there is a huge differentiation as far as the safety perception segments are concerned across the different slums considered in this study.

4.4.7 The relationship between safety index and safety dimensions

This study wanted to find out whether the safety dimensions identified using factor analysis would be useful predictors of feelings of safety. To achieve this end, a Linear Regression [LR] technique was used. LR uses the Ordinary Least Squares [OLS] procedure to determine which independent variables are useful in determining the outcome of a dependent variable. The independent variables were the four factor scores generated from the factor analysis. Factor scores are usually standardized, meaning that they have a mean equal to zero and variance

equal to one. Therefore, the dependent variable was derived from the *feelings of safety* question [which was also used in the computation of the SPI]. The variable was standardized so as to have the same data properties with the factor scores. It was hypothesized that the six safety dimensions [Factor scores] were not determinants of the feeling of safety for slum residents.

The results of the LR were obtained at two levels. First, it was done at the total sample level to explore relationships at the overall slum level. Secondly it was done for each slum area separately.

Table 4:57 shows the overall regression results.

Table 4:57 Regression coefficients between safety dimensions and feelings of safety

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	149.188	15.907		9.379	.000
	Neighbour Support Factor	1.993	1.609	.045	1.239	.216
	Crime Salience Factor	-14.099	1.268	-.407	-11.120	.000
	Gender Factor	-.480	2.311	-.007	-.208	.835
	Crime Prevention Strategies Factor	-6.390	2.340	-.098	-2.730	.007
	Crime Neglect Factor	-4.135	1.480	-.100	-2.794	.005
	Deprivation Causes Factor	-1.947	2.045	-.035	-.952	.341

a. Dependent Variable: Safety Perception Index

The overall results indicate that all of the three of the factors are significant determinants of safety perception [each of the factors had a t-value of greater or less than two]. See Table 4:57.

Basically, “Crime Salience Factor”, “Crime Prevention Strategies Factor” and “Crime Neglect Factor” are significant determinants of feeling of safety. However their coefficients are negative. This means that an increase in one unit

of these factors will lead to a decrease in the feeling of safety by a margin of 14%, 6% and 4% respectively. The data suggests that the more the residents feel that crime is on the increase the lower the feeling of safety would be. If crime prevention efforts stall, this would also lead to lower feeling of safety score. Additionally, if nothing is done to apprehend criminals and do not face justice, the more unsafe the slum residents would feel.

Even though the “Neighbour Support Factor” was not a significant determinant, it is vital to note the sign of the coefficient. It is the only factor with a positive coefficient. It seems that if the community would take responsibilities in making sure that each neighbours safety is assured, feelings of safety would improve.

A look at the differentiation at the slum area level shows a slightly different pattern. Table 4:58 shows the results. It is quite clear that the only the “Crime Saliency Factor” is a key determinant of safety across all slums. This means that the more crime happens or the more the slum residents perceive that there is more crime, automatically the feelings of safety would go down. A significant observation is in Mukuru, where the “Neighbour Support Factor” is a very strong positive determinant of safety. The data suggests that when all things are held constant, this factor an increase in one unit of this factor would lead to an increase of the safety feeling score by 12%.

Table 4:58 Regression coefficients between safety dimensions and feelings

Coefficients^a

Slum settlement	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Kibera	(Constant)	111.409	30.114		3.699	.000
	Neighbour Support Factor	-5.591	3.022	-.129	-1.850	.066
	Crime Salience Factor	-12.179	2.302	-.342	-5.290	.000
	Gender Factor	7.060	4.463	.102	1.582	.115
	Crime Prevention Strategies Factor	-5.354	4.344	-.081	-1.233	.219
	Crime Neglect Factor	-.889	2.343	-.026	-.380	.705
	Deprivation Causes Factor	1.712	4.270	.026	.401	.689
Mathare	(Constant)	221.953	37.016		5.996	.000
	Neighbour Support Factor	-4.525	3.920	-.088	-1.154	.250
	Crime Salience Factor	-18.624	2.592	-.550	-7.186	.000
	Gender Factor	.548	5.566	.007	.098	.922
	Crime Prevention Strategies Factor	-7.358	4.536	-.110	-1.622	.107
	Crime Neglect Factor	-9.322	4.026	-.164	-2.315	.022
	Deprivation Causes Factor	-4.485	4.259	-.074	-1.053	.294
Mukuru	(Constant)	122.394	29.230		4.187	.000
	Neighbour Support Factor	12.658	3.409	.275	3.713	.000
	Crime Salience Factor	-12.674	2.723	-.340	-4.654	.000
	Gender Factor	-2.291	4.343	-.037	-.528	.599
	Crime Prevention Strategies Factor	-6.222	4.854	-.095	-1.282	.202
	Crime Neglect Factor	-4.960	4.342	-.082	-1.142	.255
	Deprivation Causes Factor	-3.799	3.734	-.072	-1.018	.310
Korogocho	(Constant)	167.836	42.658		3.935	.000
	Neighbour Support Factor	2.917	3.867	.069	.754	.452
	Crime Salience Factor	-9.716	3.780	-.267	-2.570	.012
	Gender Factor	-8.297	4.660	-.161	-1.780	.078
	Crime Prevention Strategies Factor	-6.161	5.991	-.096	-1.028	.306
	Crime Neglect Factor	-5.168	4.295	-.112	-1.203	.232
	Deprivation Causes Factor	-4.145	4.681	-.087	-.886	.378

a. Dependent Variable: Safety Perception Index

of safety by slum area

Summary

Hypothesis	Analysis level	Decision Rule
Perception of crime as a 'big problem'	between slum areas	Significant difference
Extent of fear of crime	between slum areas	Significant difference
Feelings of safety	between slum areas	Significant difference
Safety perception index	between slum areas	Significant difference
Safety perception attitudes	between slum areas	Significant difference
Slum safety segmentation	between slum areas	Significant difference

With regards to safety attitudes and perception, it is evident that the slums are highly differentiated across these issues. There exists fundamental differences as far as safety and safety perceptions and attitudes are concerned between the four slum areas.

4:5. CRIME PREVENTION IN SLUM ENVIRONMENTS OF THE CITY OF NAIROBI

The fourth objective deals with aspects of crime prevention issues in the slums of Nairobi. The hypothesis tested in this section is as follows;

Hypothesis 5: Effective crime prevention strategies do not vary across the four different slum areas

4.5.1 Awareness of crime prevention in slum areas

The respondents were asked whether they were aware of any methods of curbing crime that have been put in place in their areas of residence. Table 4.59 present the results. Slightly above three quarters [78%] of the sample answered in the affirmative. However there was a huge difference between the different slums. In Mathare, Mukuru and Korogocho, more than eight in ten respondents stated that crime prevention mechanisms were being employed in their area. It is quite surprising that about 45% of the respondents in Kibera were not aware of any kind of crime prevention.

Table 4:59. Existence of crime prevention

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Yes	123	55.2%	141	92.8%	159	94.1%	93	80.9%	516	78.3%
No	100	44.8%	11	7.2%	10	5.9%	22	19.1%	143	21.7%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=114.233$, $df=3$, $p<0.001$, Significant)

4.5.2 Mechanisms of crime prevention

The first dimension of analysing the crime prevention differentials between the slums focused on the actual mechanisms of crime prevention. The respondents

who claimed to be aware of any prevention mechanisms were further asked to indicate which mechanisms they were aware about. Table 4.60 shows the prevention mechanisms mentioned.

Table 4:60. Crime prevention mechanisms

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Police patrols	97	78.9%	134	95.0%	144	90.6%	83	89.2%	458	88.8%
Vigilante groups	62	50.4%	59	41.8%	102	64.2%	88	94.6%	311	60.3%
Employed night guards	8	6.5%	12	8.5%	90	56.6%	29	31.2%	139	26.9%
Village security committees	43	35.0%	77	54.6%	74	46.5%	67	72.0%	261	50.6%
Gates and fences	106	86.2%	22	15.6%	112	70.4%	55	59.1%	295	57.2%
Others	12	9.8%	0	0.0%	1	0.6%	6	6.5%	19	3.7%
Refused	25	20.3%	88	62.4%	59	37.1%	10	10.8%	182	35.3%
Total	123	100.0%	141	100.0%	159	100.0%	93	100.0%	516	100.0%

($\chi^2=262.399$, $df=18$, $p<0.001$, Significant)

Police patrols featured as the key mechanism with almost nine in ten respondents [90%] who were aware of any mechanism mentioning it. Secondly, vigilante groups followed with about six in ten respondents [62%] mentioning it. Gates and fences, village security committees and employed night guards were also mentioned by 57%, 50% and 27% respectively.

As far as the mechanisms mentioned were checked between the slum areas, it is interesting to note some striking differences. Table 4.60 shows the results. As far as police patrols are concerned, Mathare, Mukuru and Korogocho had over 90% of their residents mentioning it. In comparison, only 80% of those in Kibera mentioned it. While almost everyone (97%) in Korogocho mentioned vigilante groups, the rest of the slum areas had less than 70% mentions.

Mukuru and Korogocho employ night guards [57% and 31% respectively] while night guards are rare in Kibera and Mathare. Village security committees

on the other hand feature extensively in Korogocho [72%] than in any other slum area. Gates and fences seem to be the preserve of Kibera, Mukuru and Korogocho [86%, 72% and 59% respectively] but are rare in Mathare [16%]. These are statistically significant differences.

Table 4:61. Mechanisms of crime prevention

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Police patrols	61	49.6%	115	81.6%	133	83.6%	45	48.4%	354	68.6%
Vigilante groups	38	30.9%	56	39.7%	65	40.9%	57	61.3%	216	41.9%
Employed night guards	1	0.8%	5	3.5%	55	34.6%	5	5.4%	66	12.8%
Village security committees	18	14.6%	45	31.9%	37	23.3%	21	22.6%	121	23.4%
Gates and fences	57	46.3%	19	13.5%	61	38.4%	9	9.7%	146	28.3%
Others	12	9.8%	0	0.0%	1	0.6%	3	3.2%	16	3.1%
Total	123	100.0%	141	100.0%	159	100.0%	93	100.0%	516	100.0%

($\chi^2=173.448$, $df=3$, $p<0.001$, Significant)

4.5.3 Most effective methods of curbing crime

The respondents were asked to mention methods they thought were the most effective in preventing crime.

Overall, police patrols [42%] were considered most effective followed by vigilante groups [23%] as shown in Table 4:62 and Figure 4:6 below. However, the views of which is the most effective crime curbing mechanism differed greatly between the slum areas. For example, while in Mukuru, Korogocho and Mathare police patrols were mentioned by over 4 in ten respondents as being the most effective, only 15% claimed so in Kibera. The data suggests that residents in Kibera have the lowest perspective as far as police patrols are considered when evaluating the effectiveness of crime prevention mechanisms. As far as vigilante groups are concerned, the same picture applied across the slums. Mukuru, Mathare and Korogocho have a

higher regard on vigilante groups than Kibera. However, it is vital to note that residents of Kibera have a higher reliability on gates and fences more than the other slums. The main reason for this difference is the incidence of crimes known to have occurred in the slum areas. For example, Kibera is mostly affected by more “in-home types of crime” than in other slum areas. These crime constitute those that the victim is accosted at home or the victim’s property at home.

Additionally, it was found out in the focus group discussions, that residents had a very low opinion of the police.

“...first, those people [police] are not well educated on issues relating on how to deal with the criminals” [Kibera Men FGD].

“...initially the police were in charge of security, but it reached a point where they were overwhelmed... the police are now not doing a good job at all” [Korogocho Women FGD].

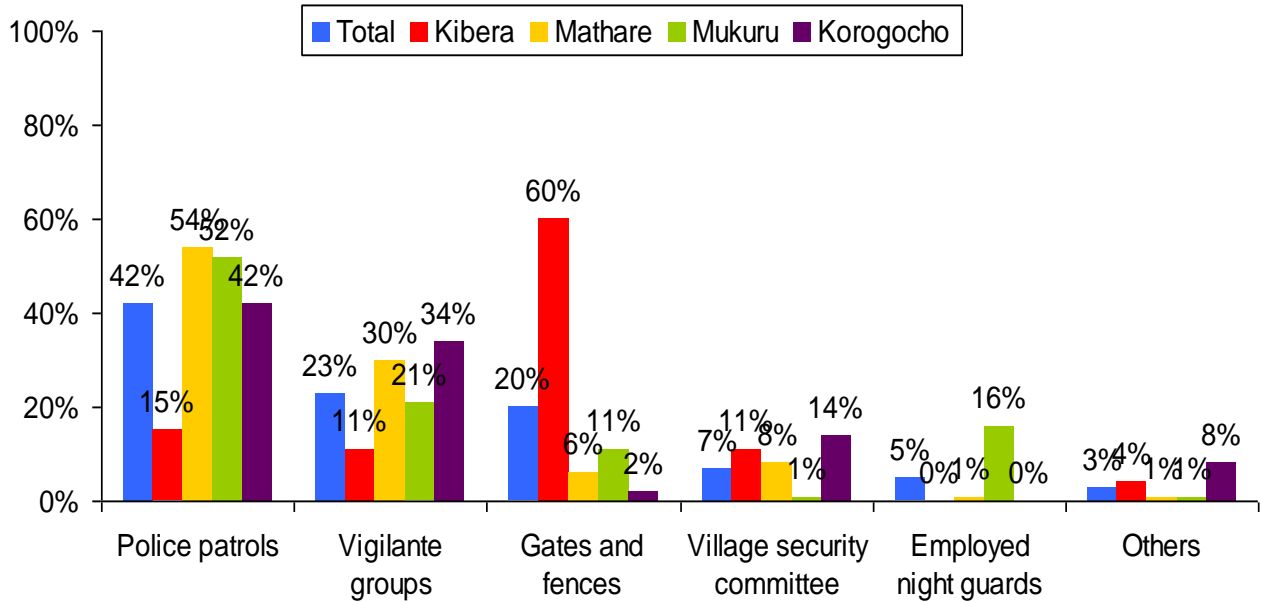
“...they cannot therefore follow cases, whenever they go out to do a search, they make arrests and this person [criminal] will never be arraigned in court, he [criminal] will be taken to the police station... he [criminal] will give a bribe and then he [criminal] is released” [Mathare Men FGD].

Table 4:62 Efficacy of crime prevention

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Police patrols	18	14.6%	76	53.9%	82	51.6%	39	41.9%	215	41.7%
Vigilante groups	13	10.6%	42	29.8%	33	20.8%	32	34.4%	120	23.3%
Gates and fences	74	60.2%	9	6.4%	17	10.7%	2	2.2%	102	19.8%
Village security committee	13	10.6%	11	7.8%	1	0.6%	13	14.0%	38	7.4%
Employed night guards	0	0.0%	1	0.7%	25	15.7%	0	0.0%	26	5.0%
Others	5	4.1%	2	1.4%	1	0.6%	7	7.5%	15	2.9%
Total	123	100.0%	141	100.0%	159	100.0%	93	100.0%	516	100.0%

($\chi^2=262.955$, $df=15$, $p<0.001$, Significant)

Figure 4:4. Efficacy of crime prevention



4:5.4 Policing crime in slum areas

Another way of testing crime prevention differentials between the slums is to focus on attitudes regarding the use of police in crime prevention.

4:5.4.1 Police notification of crime

It is vital to measure the extent to which the slum residents were ready to report any form of crime to the police. This is critical in assessing how confident the slum residents are with the police force.

The results from this study indicate that reporting of crime incidents to the police is abnormally low. Out of those who claimed to have been victims of crime in the past one year, slightly above a quarter (27%) were reported to the police. The situation is even grim when these statistics are examined from the

slum area point of view. There is a significant difference between the different slums area as far as crime reporting is concerned as presented in Table 4.64. This tallies with the very high negative perceptions of police in the slums.

Kibera recorded the least crime reporting. Slightly less than two in ten crime incidents were reported to the police while about three in ten were reported to the police in the other slum areas.

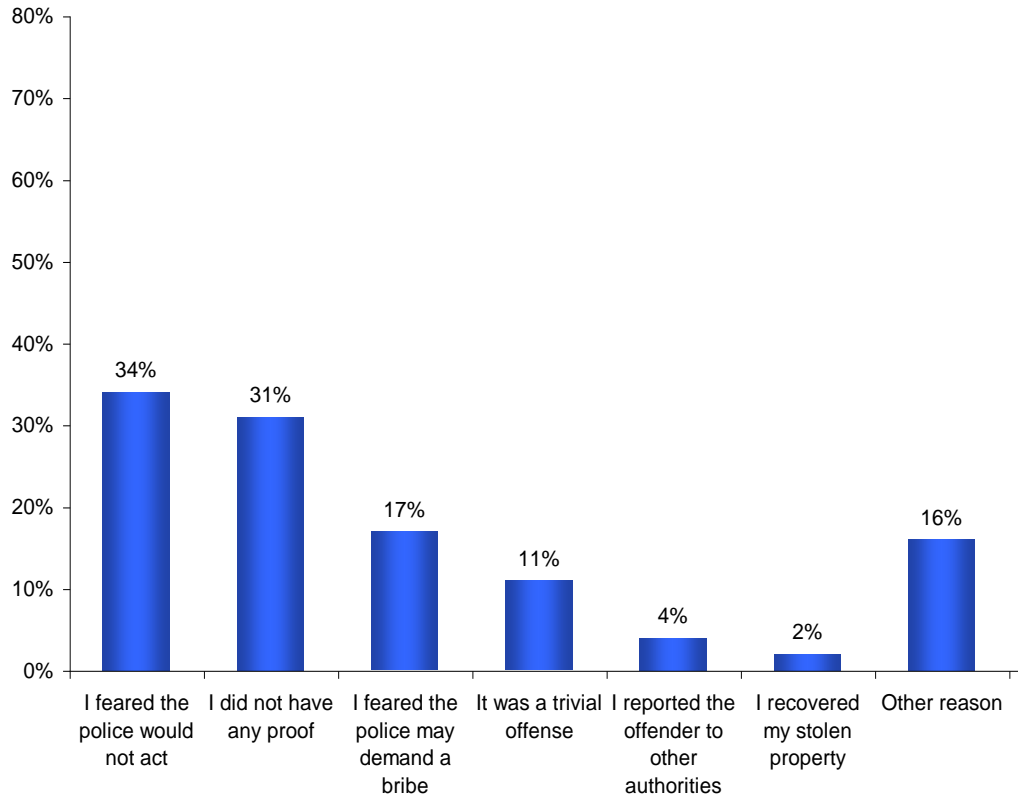
Table 4:63. Crime reporting

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Reported	12	15.8%	20	29.4%	27	33.3%	20	29.9%	79	27.1%
Did not report	64	84.2%	48	70.6%	54	66.7%	47	70.1%	213	72.9%
Total	76	100.0%	68	100.0%	81	100.0%	67	100.0%	292	100.0%

($\chi^2=9.962$, $df=3$, $p=0.073$, Significant)

The respondents who answered this question went ahead to provide some reasons that would explain why there is very little police involvement in local crime incidents. Figure 4.5, shows the key reasons cited.

Figure 4:5. Reasons for not reporting crimes



Clearly, the lack of notification of crimes to the police in slum areas is due to the perception that even if there were any reports, the police would not take any actions. Secondly, most of the crimes in the slum are petty and the respondents felt that they did not have sufficient evidence to accuse the offenders to the police. Thirdly, the level of corruption in the police force is a huge impediment to local community policing initiatives.

Other reasons that came from FGDs include issues like the undesirable bureaucracy involved in reporting a crime.

“...there is that fear, if you report a case at the police station, you are told to write a statement, you go to court and you know there is that fear, people are not aware of their rights...” [Kibera Men FGD].

Another reason is the perceived lack of resources within the police department such that the police require the person who reports the crime to provide some resources upfront.

“...it will be hard for me to go and report, since I will not afford to fuel the land cruiser that will be coming to collect the culprit...”
[Kibera Men FGD]

4.5.4.2 Police patrols

It is vital to analyze the slum residents’ perceptions of the extent to which they feel that the police are involved in curbing crime in the slum areas. The slum residents feel that police patrol should be regular. One respondent from one of the FGDs said;

“...they [police] should also interact with the community; they should not only come when there is trouble, they should also come when there is no trouble and ask how we are doing...” [Kibera FGD Men].

The respondents were asked to indicate the frequency of police patrols in their locality based on predefined frequency intervals. Their views are generally divided as in table 4.64 and figure 4.6. About three in ten (29%) respondents reported that they saw the police daily in patrols. Another 39% indicated that they saw police in their locality occasionally. Another 26% claimed that the only time they see police in their area of residence is when there is a crime incident. A paltry 4% indicated that they never see police in patrols in their areas of locality. One possible reason for little or no police patrols may be due to the level of accessibility and sanitation conditions in the slum areas. To ascertain this assertion, an analysis of the sanitation perception of all those who said that they had not seen any policeman in their vicinity was done. From this

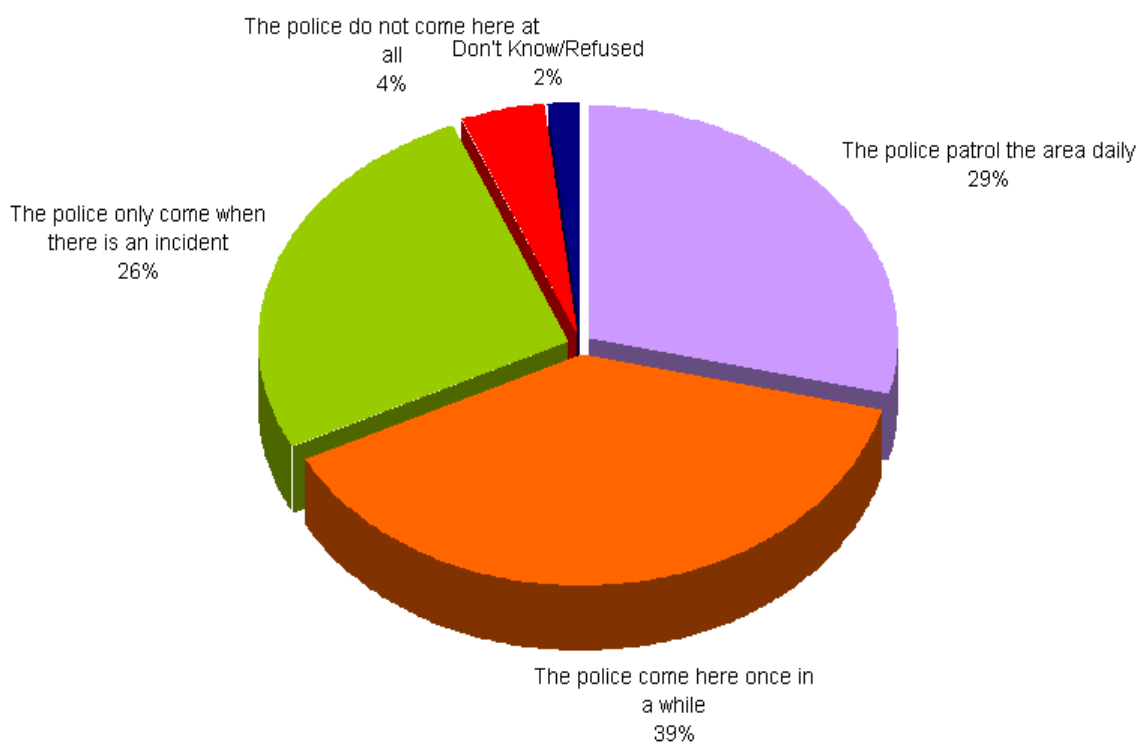
analysis, 64% of those who had never seen a policeman patrolling also claimed that sanitation was a serious problem. The rest who had seen a policeman patrolling their area had only less than 50% of them claiming that sanitation was a serious problem.

Table 4:64. Level of agreement with good sanitation conditions by police patrols

	The police patrol the area daily		The police come here once in a while		The police only come when there is an incident		The police do not come here at all	
	Count	%	Count	%	Count	%	Count	%
Strongly Agree	5	2.3%	3	1.2%	3	2.2%	0	0.0%
Agree	20	9.2%	23	8.9%	5	3.6%	1	3.0%
Neither /nor	22	10.1%	21	8.1%	12	8.8%	4	12.1%
Disagree	68	31.2%	83	32.0%	53	38.7%	7	21.2%
Strongly Disagree	103	47.2%	128	49.4%	62	45.3%	21	63.6%
Refused	0	0.0%	1	0.4%	2	1.5%	0	0.0%
Total	218	100.0%	259	100.0%	137	100.0%	33	100.0%

($\chi^2=18.250$, $df=20$, $p=0.571$, Not significant)

Figure: 4.6 Police Patrols



With respect to the poor performance of police in patrolling and attending to security issues, from one FGD respondent said;

“...for the police, at times we lack money and the lines are free calls, but when you make the call, the police asks for details of your area, when they hear it is Ngomongo they are not in a hurry to attend to the situation...” [Korogocho Women FGD]

The responses of the frequency patrols differed significantly between the slum areas. Table 4.65 shows that over half (54%) of Mathare residents claimed that the police patrolled their locality daily, as did 41% in Mukuru, 33% in Korogocho. However, only a handful of Kibera residents (13%) stated that they saw daily police patrols.

Table 4:65. Frequency of police patrols

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
The police patrol the area daily	28	12.6%	82	53.9%	70	41.4%	38	33.0%	218	33.1%
The police come here once in a while	110	49.3%	80	52.6%	55	32.5%	44	38.3%	289	43.9%
The police only come when there is an incident	83	37.2%	24	15.8%	62	36.7%	31	27.0%	200	30.3%
The police do not come here at all	24	10.8%	5	3.3%	2	1.2%	5	4.3%	36	5.5%
Refused	3	1.3%	2	1.3%	6	3.6%	1	0.9%	12	1.8%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=108.393$, $df=12$, $p<0.001$, Significant)

From Kibera FGD, the respondents were categorical about the lack of police involvement in crime reduction. They are concerned that regular police patrols are hampered by lack of police stations nearby. They feel that the current police stations that serve Kibera are far.

“...so that is why I say the police stations are very far, Kilimani and Langata is very far...” [Kibera Men FGD]

“...police response is very poor ...” [Kibera Men FGD]

Additional data from the Mathare FGD indicate that police patrols are a matter of routine but do not in any way help in eradicating crime.

“...I see them [police] daily but their intention is not to provide security, but to go to that area and get whatever they want and leave. ...though they come for patrol they come to do other businesses...”
[Mathare Men FGD]

4.5.4.3 Trends in police involvement in crime prevention and maintenance of safety

Asked to indicate whether in the last one year, the police involvement with crime prevention and maintenance of safety in this area has increased, decreased or remained the same, the respondents were also divided. Slightly over a third (35%) claimed that police patrols had increased. A similar proportion (34%) did not see much difference in the frequency and intensity of police patrols at the time of the survey. Only 22% said that the police patrols had decreased.

Comparing between the slums, there were marked significant differences as shown in table 4.66. For example, in Mukuru and Kibera about three in ten respondents (29%-30%) indicated that police involvement with crime prevention had increased compared to one year before the survey. On the other hand Korogocho and Mathare had over 40% of their residents claiming that police involvement had increased.

Table 4:66. Police involvement in crime prevention

	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Increased	64	28.7%	70	46.1%	51	30.2%	45	39.1%	230	34.9%
Remained the same	100	44.8%	36	23.7%	53	31.4%	38	33.0%	227	34.4%
Decreased	48	21.5%	44	28.9%	32	18.9%	24	20.9%	148	22.5%
Don't Know	11	4.9%	2	1.3%	33	19.5%	8	7.0%	54	8.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=64.557$, df=9, p<0.001, Significant)

Additional analysis was done between the trends in police involvement in patrols and the frequency of police patrols. Table 4.67 shows the results. It is evident that the perception of the trends of police performance in handling crime is closely related to the frequency of patrols. A case in point is that for those who claimed that the police patrol their areas daily, the perception that the involvement of police in fighting crime has increased is the highest. This is the case for all the four slums as well.

Table 4:67 The trends in police involvement in crime by frequency of police patrols.

Frequency of patrols	The police patrol the area daily		The police come here once in a while		The police only come when there is an incident		The police do not come here at all		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Increased	116	53.2%	85	32.8%	26	19.0%	3	9.1%	230	34.9%
Remained the same	50	22.9%	91	35.1%	64	46.7%	20	60.6%	227	34.4%
Decreased	41	18.8%	60	23.2%	38	27.7%	8	24.2%	148	22.5%
Refused	11	5.0%	23	8.9%	9	6.6%	2	6.1%	54	8.2%
Total	218	100.0%	259	100.0%	137	100.0%	33	100.0%	659	100.0%

($\chi^2=136.700$, df=9, p<0.001, Significant)

4.5.5 Government commitment in eradicating crime in slum areas

A question was posed to the respondents asking them to share their views as to what extent they thought the government, as a whole was committed in eradicating crime in the slum areas. The results from this study indicate that the respondents are split in their views. Only 28% think that the government is committed to a “large extent” in eradicating crime. The rest of the sample is split equally between “to a lesser extent” and “to a small extent” each having 34% save for a paltry 4% who did not have “any idea”.

A check on the comparison between the slum areas shows a significant difference as indicated in table 4.69. For those who think that the commitment from the government is “to a large extent”, there emerges two camps from the slum point of view. The first group consists of Kibera and Mukuru who have a low opinion (less than a quarter of their residents saying “to a large extent”). The other group consists of the rest of the slum areas (Mathare and Korogocho) where each has 42% of their respondents claiming that government is committed “to a large extent” in eradicating crime in the slum areas.

Table 4:68. Government commitment to eradicate crime

Level of commitment	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
To a large extent	32	14.3%	64	42.1%	40	23.7%	48	41.7%	184	27.9%
To a lesser extent	86	38.6%	46	30.3%	69	40.8%	20	17.4%	221	33.5%
To a small extent	95	42.6%	39	25.7%	55	32.5%	37	32.2%	226	34.3%
No idea	10	4.5%	3	2.0%	5	3.0%	10	8.7%	28	4.2%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=64.396$, $df=9$, $p<0.001$, Significant)

4.5.6 Community policing in slum areas

The government introduced the community policing strategy in 2006. Community policing was seen as the best method of combating crime. In this case, the community was to be involved in crime prevention. One of the key highlights of the programme was to furnish the police with information about crime and criminals, since the criminals are part of the larger community and are known by the residents themselves.

This study investigated whether the slum community was in a position to provide the police with information about criminals. Therefore a question was posed to all the respondents in a bid to establish if they suspected that there was a criminal in their neighbourhood, how likely they were to give this information to the police?

The results of responses to this question from this data which are in table 4.69, show that actually slightly over seven in ten (71%) respondents were “very

likely” or “likely” to give this information to the police. This shows that community-policing initiatives are likely to succeed in the slum areas.

Table 4:69. Likelihood of furnishing the police with crime information

Inclination to provide information	Kibera		Mathare		Mukuru		Korogocho		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Very likely	118	52.9%	60	39.5%	71	42.0%	33	28.7%	282	42.8%
Likely	42	18.8%	66	43.4%	43	25.4%	31	27.0%	182	27.6%
Unlikely	33	14.8%	16	10.5%	37	21.9%	26	22.6%	112	17.0%
Very Unlikely	29	13.0%	10	6.6%	18	10.7%	24	20.9%	81	12.3%
Total	223	100.0%	152	100.0%	169	100.0%	115	100.0%	659	100.0%

($\chi^2=51.671$, $df=9$, $p<0.001$, Significant)

As consistent with most of the results from this study, there is a significant difference between the slum areas. Most support in reporting criminals to the police would come from Mathare 83%, Kibera (72%), Mukuru (67%) and Korogocho (56%) in that order.

From the FGDs, several reasons were given that explained why some people would fear to give the information on crime to the police. One reason is that some residents feel police usually collude with the criminals. For example from the Korogocho FGD, one respondent said:

“...and when you tell the police that somebody is a criminal, he [police] goes and tells that person [criminal] that it is Anjeline [respondent] who said that you are a thief... therefore when he [criminal] is released he comes straight to you... he [criminal] comes and attacks you...” [Korogocho Women FGD].

However, some respondents say that the reporting can be done in absolute anonymity, which is considered to be a safe option. Thus:

“...Whenever a crime happens, most of the times I make the call to the police but I don’t tell anyone that I made the call. So I console myself that if the police decide to come let them come, if not well and good... so when I take it upon myself to report, I don’t mention that I have called the police, because they will say that I don’t mean well for them...” [Korogocho Women FGD].

4.5.7. The role of vigilante groups in slum crime management

The qualitative findings from this study indicate these slums apart from Kibera have vigilante groups that are supposed to be in charge of security in their areas to supplement police efforts in crime control. Most of these vigilante groups take the form of local youth associations.

However the effectiveness of these vigilante groups in taking care of crime in the slum areas is questionable. These vigilante groups first did not have a structured way of operation. From one of the FGDs, a respondent said that some of these youth were not initiated to curb crime but were politically motivated to protect the interests of politicians in the slums. In the words of this respondent:

“...we have these youth groups like the one known as Mungiki they claim to be providing security but they are not..”[Mathare Men FGD]

“...when we started having gang problems, it was like we had two political parties ...we had one called ‘Taliban’...and the other one was ‘Mungiki’... in 2002 when we were about to vote for a new president they really pushed us...” [Korogocho Women FDG]

The vigilante groups that claim to provide security were also reported to use extortionist tactics to obtain money from the residents as fee for providing security. Unfortunately the “security levy” that they charge the residents is

compulsory and those who default pay dearly. This was accurately described in the Mathare FGD.

“...they charge every house thirty shillings per month for security, and since you don’t want to have problems you just pay them since if you don’t pay they will break into your house and beat you up badly, so you have to pay...”

The use of vigilante groups in the slum areas is compounded by the fact that these vigilante groups are also perceived to be involved in crime as well. Even though they pose as security providers, they also engage in criminal activities as well.

“...there is a group of ‘Mungiki’ and there are also others who are thieves...” [Mukuru Women FGD]

As far as crime prevention, control and management are concerned; this study has established significant variations between the slums as summarised in the following table.

Summary of Significant Differences in crime Control

Hypothesis	Analysis level	Decision Rule
Awareness of crime prevention activities	between slum areas	Significant difference
Reported crime prevention mechanism	between slum areas	Significant difference
Most effective methods of curbing crime	between slum areas	Significant difference
Police notification of crime	between slum areas	Significant difference
Frequency of police patrols	between slum areas	Significant difference
Trends in police involvement in crime	between slum areas	Significant difference
Government commitment in eradication crime	between slum areas	Significant difference
Likelihood of notifying the police about a crime	between slum areas	Significant difference

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5:1 Introduction

The following chapter includes summary of information from the key findings of this study and the conclusions thereof. Additionally it includes some recommendations and implications for future research.

5:2 Summary

The purpose of this study was to seek explanations of crime differentials in city slum areas, with a view of suggesting crime prevention strategies. This research was guided by the following objectives:

1. To identify and compare the types and causes of crime between the four slum areas in the City of Nairobi.
2. To compare crime victimization and demographic characteristics of Nairobi's slum residents.
3. To assess the awareness, attitudes and perceptions of safety as experienced by residents in the studied slum areas of Nairobi.

4. To investigate crime mitigation strategies currently employed in the slum areas of Nairobi

This section therefore provides a summary of key findings of this study.

5:2.1 The structure of slum areas in Nairobi

Generally there are some demographic aspects that do vary and some that do not vary across the slum areas. For example, gender parity, employment status and indicators of slum areas do not vary across the slum areas. These are key variables that define what slums in general are.

On the other hand, age profiles, highest level of educational attainment, marital status, spending of spare time, electronic media preference, income profiles, duration of stay in the slum areas, household sizes and relative level of affluence showed significant variations between the slums.

5:2:2 Typology and causes of crime in the slum areas of the city of Nairobi

There exists a repertoire of crime types within the slum areas of Nairobi. There exists a combination of both person-to-person and person-property crimes. However, the most prevalent crimes in the slum areas are person-person crimes.

Additionally, most of the common crimes in the slum areas constitute those that attract short to medium term punitive measures according to the law. For example, illicit brewing is the most common of crimes but usually to not attract

very severe penalties. However crime such as robbery with violence and murder, which attract capital punishments are also rampant in the slum areas.

Most of the crimes that attract short-term jail sentences or cheap fines occur very often while the capital punishable offences are not very regular.

Generally, there is divided perception in the different slum as far as the retrospective and future expectation of crime trends is concerned. While most of the slum dwellers feel that crime has reduced, it is only in Kibera where actually the majority of its residents feel that crime has increased within one year of the survey date.

The major causes of crime in the slum areas have been attributed to several factors. First the level of unemployment and school drop-outs in the slum areas is high. For example over a quarter of all those who live in slum areas are either primary or secondary school dropouts. This therefore leads to youth idleness, which leads to a big pool of young slum dwellers engaging in crime. Additionally, poverty has been another key reason cited for being responsible for crime in the slum areas. Most slum residents earn a meager income and result to living in slum areas because they provide cheap housing and living expenses. Therefore to make ends meet, most of the young poor in slum areas result to crime as a source of livelihood. Proliferation of illicit brewing den and consumption of the brew was also cited as another reason why there is comparatively high crime in the slum areas.

5:2:3 Differential characteristics of Nairobi slum crime victims and associated vulnerability

Crime victimization in the slums areas is high. Over four in ten slum dwellers claim that they have been victims of crime in the past year. However, this figure varies considerably between the different slum areas. For example, Korogocho has the highest number of victims totaling to over half of its residents. Mathare and Mukuru have just about half its residents being victims of attacks while in Kibera only a third of its residents were crime victims.

Contrary to many studies, there seem to exist average cases of demographic vulnerability to crime. For example while many studies indicate that men are more prone to crime than women, no such finding was established in this survey. Additionally the lifestyles of young people propel them to being victims of crime. On the contrary this study has established that older people in the slum areas were more prone to crime than younger people mainly because the young ones were the criminals themselves. Ethnicity is also a determinant of crime in the slum areas. Different people of different tribes have unequal probability of being crime victims in the slum areas. For example in Kibera, Kamba and Luo communities have a higher probability of being crime victims than their Kikuyu and Luhya counterparts. As far as the level of affluence is concerned, this study has established that the most poor and the least poor have a higher incidence of crime victimization than those in the middle affluence bracket.

5:2:4 Attitudes and perceptions of safety, among the slum dwellers of the city of Nairobi.

Most of the slum dwellers agree that crime is a big problem in the slum areas. However, Kibera residents feel it is a big problem compared to the other slums. Notably Mathare slum has the least proportion of those who think that crime is h a big problem.

Fear of crime is high in the slum areas. However, Kibera residents fear crime more than other slums. Fear of crime in the slum areas is driven by victimization rates. The more victims of crime in any slum the higher the fear of crime. Perceptions of future criminal incidents also contribute to the fear of crime. Those who feel that crime will increase in future have a higher fear of crime.

Safety perceptions also differ between the slum areas. Kibera residents feel very unsafe than their other counterparts. However it should be noted that Kibera had the least repertoire of crime. Low levels of crime do not necessarily mean that the feelings of safety are high. Kibera is a unique slum. Even though it had the least proportion of victims in the last one year, its residents compared to the other slums have a higher feeling of being unsafe.

An analysis of the attitude statements on safety yields six underlying perceptions of safety within the slum area.

- First, is the neighbor support factor that refers to the goodness of neighborhood informal organization in providing each other with security.
- Secondly, the crime salience factor that refers to safety feelings depending on the crime level situation in an area the higher the crime the lower the feelings of safety
- Thirdly, the gender factor that recognizes those groups those are most vulnerable to crime. The main feature of this dimension is that in a community, there those who are more vulnerable to crime than others. Meaning that if this group are predominant in the community, then there is a higher chances of crime
- Fourthly, the crime prevention strategies factor whose mainstay is the application of conscious efforts to curb crime as a means of ensuring safety
- Fifth, the crime neglect factor that recognizes external and detached aspects such as poor court judgments on criminals as a key cause of repeat crimes in the community.
- Finally the deprivation causes of crime factor that postulates that due to poor economic conditions and poverty in the slum areas crime is bound to increase.

The respondents were then grouped into which factors apply to them most. This yield safety altitude segments Kibera and Mukuru residents are more likely to be “Neighbors support” and “Gender” segment. Mathare is more towards “Crime neglect” and “Deprivation causes” while Korogocho is more towards “Crime prevention” and “Crime neglect” segment.

5:2:5 Crime Prevention in the slum areas of Nairobi

It is surprising that about two in ten respondents in the slum areas are not spontaneously aware of any crime prevention in their areas. This also differs considerably between the slum areas. Kibera is worst affected.

For those aware of any prevention measures, police patrols feature extensively. Vigilante groups in the slum areas follow. Others include physical barriers such as gates and fences and village security committees.

The most effective method of curbing crime is undoubtedly police patrols and community policing initiatives. Even though these measures are ideally considered to be the best in resolving issues of crime in the slum areas, police performance in the slum areas is poor and wanting. This has resulted in lack of faith in the police system. About three quarters of crimes in the slum areas are not reported to the police. This is partly due to police corruption and gross incompetence. Community policing initiative can work well in the slum areas because most residents are likely to report any criminal who lives among them, but this requires public goodwill with the police.

Vigilante groups which pose as crime prevention units in the slum areas do not have good will with the residents. They are seen to be politically motivated more than crime prevention-motivated. They are associated with militias such as “Mungiki” [“Mungiki” means the group of people with the same mission] and “Taliban”. Their main preoccupation is extortion more than provision of security. It should be noted that slums with vigilante groups have a higher incidence of crime victimization. Kibera slum is the only one that at the time of the survey did not have extortionist vigilante groups such as “Mungiki” and “Taliban” and had the lowest rate of crime victimization.

5:3 Conclusions

This section provides a summary of the conclusions for this study.

5.3.1 Slum socio-demographic characteristics

In as much as slums are areas of poor sanitation, poor housing conditions and high population densities, the findings from this study have shown that there is a differentiation as far as population and demographic characteristics are concerned. This means that each slum area is inherently different from each other. No two slums are the same. Each has its own social organization.

5.3.2 Typology and causes of crime in the slums of the City of Nairobi

One of the greatest problems after sanitation issues is crime. Slum areas experience more crime incidents than non-slum areas. However the nature and types of crime are different from each other. As far as the crime profile of each

slum is concerned, each slum has a repertoire of its own endemic crimes. This has implications on the design of crime prevention strategies.

Due to the differential socio-demographic profiles of each slum, the perception of crime trends is also different. Due to the fact that each slum has its own repertoire of crimes, the perceptions about crime trends is affected.

The causes of crime are not unique. As a result of high levels of unemployment, and high standards of living, the youth in the slum turn to crime as a source of livelihoods. Economic empowerment of the urban poor youth may be a viable strategy for crime prevention in slum areas.

5.3.3 Differential characteristics of Nairobi slum crime victims and associated vulnerability

Contrary to many studies done, the highest risk that faces the slum dwellers is the slum locality they lived in. Those who live in Korogocho have the highest risk of becoming victims of crime than those who live in other slum. Demographic vulnerability is minimal. The highest source of risk is the slum locality. Crime prevention programs in Korogocho should be suited to its unique setting. The main characteristics of Korogocho different from other slums are; It has the highest youngest population, the highest population with the lowest levels of education and the highest population with the lowest income bracket. It seems that the socio-economic profile of Korogocho is the poorest and this is correlated to high levels of crime.

5.3.4 Attitudes and perceptions of safety among slum dwellers of the city of Nairobi

Crime is a big problem in the slum areas and the residents are completely aware of this fact. The fear of crime is high in the slum areas and this is dependent on the frequency and the types of crimes experienced in the slum areas.

Fear of crime is dependent on several factors. Two are key. First if one has fallen victim of any crime, the fear of crime is definitely higher. Secondly the higher the number of crimes in an area, the higher the fear of crime.

Perceptions of safety differ considerably between the slum areas. As far as evaluating the underlying structure of attitudes and perceptions, six key dimensions are important. These includes; Neighbour Support where safety among neighbours is guaranteed. This is based on the social disorganization paradigm. As far crime Salience is concerned, the more crime increases the poorer the attitudes towards safety. Gender aspects of crime are vital because it signifies the vulnerability aspect of victims. Crime prevention strategies fall in the centre of safety perceptions. If more strategies are put in place, the better the safety perceptions will be. Crime neglect relates to the wider picture of how crime is dealt with. For example if criminals are prosecuted, then the feelings of safety will improve. Finally, the root causes of crime also have a place in shaping the safety attitudes. If these causes were addressed, the higher the chance that the feelings of safety would improve as well.

5.3.5 Crime prevention in slum environments of the city of Nairobi

Mechanisms of crime control in the slum areas are not effective. The role of police in addressing crime effectively in the slum area is largely in doubt. The methods used by police in curbing crime in the slum areas are not appreciated by the residents. This brings a big challenge to initiatives such as community policing since the residents do not trust the institution of the police and its role in eradicating crime.

The failure by the police to control crime has provided unscrupulous vigilante groups such as the Mungiki to take advantage of the resident by providing alternative security, however these alternative plans are more of extortionist scams more than actual provision of security.

5:4 Recommendations

5.4.1 Introduction

This section provides a set of recommendations that are informed by the proceedings of this study. Basically, the chapter deals with the issue that first, crime should be recognized as a burden in the slum areas just like sanitation and housing. Secondly it provides policy framework recommendations on how to deal with slum crime and finally provides implications for future research work that can be conducted after this study.

5.4.2 Recognition of crime-burden in the slums

In the literature review, this study recognized the fact that even in the millennium goals; effort is being directed towards improving living standards of the urban poor. It is clear that most efforts are being directed towards improving slum sanitation, accessibility to adequate supply of clean water, durable housing, secure living tenures and reduction of congestion. However, crime and safety issues in slums are not adequately addressed. Safety in slum areas is still a preserve of the wider urban safety programs. It is vital to recognize that just like sanitation, crime is still a huge problem in the slum areas and would require specific programs to address the problem. The study findings suggest that slum crime should be addressed as one way of ensuring the improvement of living standards for the slum dwellers.

5:4.3 Suggestions for Slum Crime Prevention Policy

5.4.3.1 Introduction

The study findings have identified that crime in slum areas is a complex phenomena. Any crime prevention strategy in the slum areas should take into cognizance the idiosyncratic nature of each slum crime profile and attitudes towards safety. It is clear that each slum has a set of very unique characteristics that have to be taken into account when developing any strategy. A stakeholder approach should be used in developing a framework for a wider slum safety improvement program. However, this study has only dealt with the public

opinion. However, other stakeholder such as the police, vigilante groups and community leaders and representatives should be jointly involved in coming up with homegrown solutions for crime prevention.

Therefore, crime prevention and control in the slum areas may require a different approach basically because current prevention mechanisms have not yet succeeded and that the approach of crime prevention in the slum areas may not necessarily follow conventional approaches used in non-slum areas. It is widely known that most of criminals who may not necessarily commit the acts in slum areas, also reside in this slum areas because due to the unique nature of slum settlements, they find it to be a refuge. Due to this reason, it is important to formulate practical policies that can be forwarded to the government. The findings of this study will inform this policy.

While in this dissertation, it is not practical to draft a complete policy document, the following section is dedicated to the specific findings that should be used to design and develop a comprehensive Slum Crime Prevention Policy.

Young and Quinn (2002) have provided guidelines for writing effective public policy documents. In this document, they have recommended a six step process that can be used to develop a policy. The stages are (in chronological order) problem definition, constructing policy alternatives, choice of solution, policy design, policy implementation and policy evaluation. This study has borrowed this framework to make initial suggestions of how the Slum Crime Prevention

Policy could be developed. For the purposes of this dissertation, steps 1 and 2 only will be included in this document.

5.4.3.2 Slum Crime Prevention Policy

5.4.3.2.1 Problem definition

Most of the current issues surrounding slums currently in Kenya are mainly slum upgrading. A lot of effort is being made to ensure that residents in slum areas have access to safe drinking water, live in a cleaner environment, and live in permanent durable structures with enough space. However, very little is being done on crime. It seems that no study before this one has actually demonstrated that crime is a big problem in the slum areas. While several mechanisms are in place to try to reduce crime in the slum areas, they are not effective because crime is still rife. For example occasional police patrols are not effective while those in vigilante groups also turn to be criminals themselves. Additionally, this study has found out that slums are very different in terms how crime thrives therefore, not all crime prevention mechanisms will work in the same way.

5.4.3.2.2 Policy formulation

This section highlights the policy alternatives that should be pursued based on the findings of this study.

A two-tier slum-specific crime prevention approach

The findings of this study indicated that each slum area is unique. Therefore crime prevention in the slums areas should be a two-tier approach. First prevention should be done at a general level in slums areas on specific issues that are similar. This mainly should involve the government security apparatus such as the police and the provincial administration. Secondly, on specific issues that are unique to the slum itself, local security committees and the community should be involved in generating localized solutions.

Neighborhoods crime prevention approach

This study confirmed the social disorganization theory where neighborhoods that are well structured, have a lot of interactions among its residents tend to have lower crimes. This was also extracted as one key dimension of safety attitudes. Based on this, there should be a conscious effort to encourage neighbourhood cohesion. This should be handled by the provincial administration in terms of organizing how the neighbourhood geography will look like and to facilitate formal recognition of these neighbourhood groups as key components of a wider crime prevention strategy.

Improvement of community policing initiatives in the slum areas

Proceedings from this study indicate that most residents (70%) would be willing to cooperate with the police in providing information about crime and criminals. However, the major drawback is that the police are not handling this

process professionally. Most residents feel that the police, rather than them using the information to apprehend the criminals, they victimize those residents who provide such information. The police need to give confidence to the public that that information would be used appropriately to deal with crime in the slum areas.

Youth engagement with economic activities

The study confirmed that youth unemployment is a key cause of crime in the slum areas. This is not a new phenomenon. However, the rate at which the youth are engaged into economic activities is low. From the ground, most initiatives are on social developments which are mainly spearheaded by Non Government Organizations [NGOs], Community Based-Organizations [CBOs], religious organization and the government. Social development is not the main key to eradication poverty. Efforts to engage the youth into gainful employment are ad hoc and rarely sustainable over long periods. This requires a stakeholder approach in looking for practical ways of engaging the youth in gainful employment or self-employment. Further research needs to be done to identify the major ways by which the youth can be engaged economically. The “Kazi kwa Vijana” initiative is a clear example of such ideas. However, this program unfortunately cannot cater for all unemployed youth in the slum areas. Extra initiatives need to be developed.

5.4.4 Implications for future research

Secondary data on crime is not readily available due to bureaucratic red tape with police authorities. Additionally, the organization of police stations does not match with the slum boundaries. It is therefore difficult to isolate crime reported in the slum areas. Notwithstanding, there needs to be an empirical study on what are the actual crime trends in the slum areas in order to identify whether any prevention mechanisms yield any fruit as far as crime eradication and future prevention is concerned.

The findings of this study form baseline findings since no other study has utilized the methodologies employed in studying crime in the slum areas before. However, this study needs to be replicated later to check whether there are any changes whether positive or negative on the aspects measured in this study. Continuous studies provide trended information that would be the main key in future in order to evaluate progress of initiatives adopted for crime reduction in each slum.

5:8 SUMMARY

This chapter has described and summarised information from the key findings of this study and the conclusions thereof. Additionally it includes some recommendations and implications for future research.

The next section is the references, research proposal budget guidelines, research proposal time guidelines, training manual for field assistants, the research authorisation letter from Kenyatta Universty and the research authorisation letter from Ministry of Science and Technology.

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APPENDIX 1 Respondents Demographics

Respondents Demographics	
I'm now going to ask you questions about yourself.	
<p>D1. Sex of informant /Jinsia [observe]</p> <p>[1] Male/Mume</p> <p>[2] Female/Mke</p>	<p>D2. Highest Level of Education /Kiwango chako cha elimucha juu kabisa</p> <p>[1] Never gone to School/Hajaenda shuleni</p> <p>[2] Some primary school/Hajamaliza shule ya msingi</p> <p>[3] Primary completed/Amemaliza shule ya msingi</p> <p>[4] Some secondary/Hajamaliza shule ya upili</p> <p>[5] Secondary completed/Amemaliza shule ya upili</p> <p>[6] Tertiary College/Ameenda kwenye college</p> <p>[7] University and above/Ameenda kwenye chuo kikuu na zaidi</p> <p>[8] Refused/Amekataa</p>
<p>D3. Employment Status/Hali ya kazi</p> <p>[1] Unemployed/Hana Kazi</p> <p>[2] Employed casual labourer/kazi ya kibarua</p> <p>[3] Employed part-time/ameajiriwa saa chache kwa siku</p> <p>[4] Employed full-time/ameajiriwa mchana mzima</p> <p>[5] Self employed/amejajiri</p> <p>[6] Retired/Amestaafu</p> <p>[7] Refused/Amekataa</p>	<p>D5. Marital Status/Hali ya ndoa</p> <p>[1] Single/Hajaolewa/Hajaoa</p> <p>[2] Single with Child/Hajaolewa lakini ana mtoto</p> <p>[3] Married living with spouse/Ameolewa/ameoa</p> <p>[4] Separated/Wameachana</p> <p>[5] Divorced/Wamepeana talaka</p> <p>[6] Widowed/Mjane <input type="text"/></p> <p>[7] Other (specify)/Nyingine(taja) _____</p> <p>[8] Refused/Amekataa</p>
<p>D4. What is your age?/Umri wako?</p> <p>[1] 18-24 years/Kati ya miaka 18 na 24</p> <p>[2] 25-34 years/Kati ya miaka 25 na 34</p> <p>[3] 35-44 years/ Kati ya miaka 35 na 44</p> <p>[4] 45-54 years/ Kati ya miaka 45 na 54</p> <p>[5] 55-64 years/ Kati ya miaka 55 na 64</p> <p>[6] 65 years+ / Miaka 65 na zaidi</p> <p>[7] Refused/Amekataa</p>	<p>D6. Household Status/Hali ya kifamilia</p> <p>[1] Head of Household/Kiongozi nyumbani</p> <p>[2] Housewife/Mke nyumbani</p> <p>[3] Relative/Jamaa <input type="text"/></p> <p>[4] Child/Mwana</p> <p>[5] Other(specify)/Nyingine(taja) _____</p> <p>[6] Refused/Amekataa</p>
<p>D8. Which is your favourite radio station?/Wewe hufurahia kusikia stesheni gani ya radio</p> <p><input type="text"/></p>	<p>D7. Activities done 1 week ago/Mambo uliyafanya kwa muda wa wiki moja iliyopita [*Multiple mentions apply]</p> <p>[1] Watched TV/Kutazama runinga</p> <p>[2] Read a newspaper/Magazine/Kusoma magazeti/jarida</p> <p>[3] Listened to radio/Kusikiza radio</p> <p>[4] Read magazines/Kusoma jarida</p> <p>[5] Watched movie at home/Kuona filamu nyumbani</p> <p>[6] Went to church or mosque/Kuenda kanisani au msikitini</p> <p>[7] Visited relative and friends/kutembelea jamaa na marafiki</p>
<p>D9. Which is your favourite TV station?/Wewe hufurahia kutazama stesheni gani ya televisheni?</p> <p><input type="text"/></p>	

<p>D10. For how long have you lived in this place/Umeishi hapa kwa muda upi?</p> <p>[1] Less than 1 year/<i>Chini ya mwaka moja</i></p> <p>[2] Between 1 and 3 years/<i>Kati ya mwaka mmoja na miaka mitatu</i></p> <p>[3] Between 4 and 6 years/<i>Kati ya miaka 4 and miaka 5</i></p> <p>[4] Over 6 years/<i>Zaidi ya miaka 6</i></p>	<p>D11. Religion/Dini</p> <p>[1] Christian – Catholic/<i>Mkristo - Mkatoliki</i></p> <p>[2] Christian – Protestant/<i>Mkristo -Mprotestanti</i></p> <p>[3] Muslim/<i>Muislamu</i></p> <p>[4] No religion/<i>Hana dini</i> <input style="width: 20px; height: 15px;" type="text"/></p> <p>[5] Other (Specify)/<i>Nyingine(taja)</i> <input style="width: 100px;" type="text"/></p> <p>[6] Refused to answer/<i>amekataa kujibu</i></p>
<p>Q1. I would like you to how much problem you have with the following issues in your area. Please tell me how much problem do you have with...? Is it a big problem a moderate problem, a small problem or no problem at all/Ningependa unieleze uko na shida kiasi gani na mambo yafuatayo hapo unapoishi. Hebu nieleze, ni shida kubwa sana, shida kadri, shida kidogo tu au hakuna shida kabisa.</p>	
	<p>A big problem/ <i>Shida kubwa kabisa</i></p> <p>A Moderate problem/ <i>Shida wastani</i></p> <p>A small problem <i>/ Shida kidogo tu</i></p> <p>No problem at all / <i>Hakuana shida kabisa</i></p>
[1] Health/ <i>Afya</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[2] Education/ <i>Elimu</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[3] Economy/ <i>Uchumi</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[4] Unemployment/ <i>Kutokuwa na kazi</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[5] Poverty/ <i>Umaskini</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[6] Environment/ <i>Mazingira</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[7] Crime and safety / <i>Uhalifu na usalama</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[8] Politics/ <i>Siasa</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
<p>Q2. Now, what is your level of agreement with the following statements?/Sasa Unakubaliana kiasi gani na mambo yafuatayo?</p>	
	<p>Strongly Agree/ <i>nakubali kabisa</i></p> <p>Agree/ <i>Nakubali</i></p> <p>Neither /nor <i>/Sikatai au kukubali</i></p> <p>Disagree/ <i>Sikubali</i></p> <p>Strongly Disagree <i>/Sikubali kabisa</i></p>
[1] Where I live, I have adequate access to water supply/ <i>Kule ninakoishi mimi hupata maji ya kutosha</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[2] The area I live in has good sanitation/ <i>Mazingira ninyo ishi ni safi na haina taka</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[3] I live in a durable house/ <i>Ninaishi kwa nyumba ya kudumu</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[4] I live in a house that has enough space for my daily activities/ <i>Ninaishi kwa nyumba ilyo na nafasi nzuri</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>
[5] Where I live I don't fear that I will be evicted one day/ <i>Ninapoishi, sina hofu kwamba nitafukuzwa siku moja</i>	<input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/> <input style="width: 30px; height: 20px;" type="checkbox"/>

Crime and Victimization

I'm going to ask you questions about crime you and anyone in your household has experienced in **this area and not elsewhere**/Sasa, nataka kukuuliza maswali kuhusu uhalifu wewe au yeyote unayeishi naye kwa nyumba moja amepata **katika eneo hili**

CV1: Which of the following crimes do you currently face in this area? (Do not read list)
Ni uhalifu gani ambao hufanyika mahali hapa? [***Multiple mentions apply**]

CV2: What about these crimes? Do you face them too? (Read list for the ones not mentioned in CV1)

Na je uhalifu huu? Hufanyika hapa? [***Multiple mentions apply**]

CV3: How long ago did you experience this crime in this area?

Ni muda upi umepita tangu uhalifu huu ufanyike? [***Single mention for each crime mentioned**]

CV4: Which of the following is most prevalent than others?

Kati ya hizi, ni ipi inayo fanyika mara kwa mara kushinda zingine? [***Single mention**]

	CV1	CV2	Last 3 months	Last 6 months	Last 1 year	Over 1 yr ago	CV4
[1] Assault/Kupigwa au kuumizwa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[2] Pick-pocketing/Kuibiwa mfukoni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[3] Mugging/Kunyang'anywa bidhaa barabarani	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[4] Sexual abuse/Kubakwa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[5] Burglary/Wizi wa kuvunjiwa nyumba	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[6] Robbery with violence/Wizi wa kimabavu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[7] General robbery/Wizi wa kawaida	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[8] Arson/Kuchomewa nyumba au bidhaa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[9] Murder/Mauaji	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[10] Car-jacking/Kuibiwa kwenye gari	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[11] Kidnapping/Mtu kuibiwa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[12] Illicit brew/Pombe haramu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[13] Drugs/Madawa ya kulevya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[14] Other (Specify)/nyingine taja _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CV5. To what extent do you fear all kinds of crime in this area? Would you say it is a great deal, A fair amount, not very much or not at all/Ni kwa kiwango gani wewe huogopa aina zote za uhalifu huku? Unaweza kusema ni kwa kiasi kikubwa, kiasi kadri, sio kwa kiasi kikubwa sana au siogopi kamwe.

- [1] A great deal/Kwa kiasi kikubwa
- [2] A fair amount/Kwa kiasi kadri
- [3] Not very much/Sio kwa kiasi kikubwa sana
- [4] Not at all/siogopi kamwe
- [5] Don't know/Sijui [Do not read out]

CV6a. Generally, would you say, in the last 1 year, that incidents of crime in this area has increased, decreased or remained the same/Ukiangalia mwaka mmjoa uliopita, unaweza kusema kama visa vya uhalifu umeongezeka, umepungua au umebaki vile vile

- [1] Increased/Umeongezeka
- [2] Remained the same /Umebaki vilevile
- [3] Decreased/Umepungua
- [4] Don't know/Sijui [Do not read out]

CV6b. Please give a reason for your answer above/Tafadhali peana sababu ya jibu lako

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CV7. When you look ahead in the next one year, do you expect the crime situation in this area to increase, decrease or remain the same?/Ukiangalia mbele mwaka mmoja kutoka sasa, unaonelea kama uhalifu utaongezeka, utapunguka au utabaki vile vile

- [1] Increase/Utaongezeka
- [2] Remain the same /Utabaki vilevile
- [3] Decrease/Utapungua
- [4] Don't know/Sijui [Do not read out]

CV8. According to you, which are the main causes of crime in this area [Probe]/Kulingana na maoni yako mwenyewe, nini husababisha uhalifu katika eneo hili?

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CV9. Have you personally or a member of your household been a victim of crime in the past 1 year?/ Je? Umeweza kufanyiwa uhalifu wewe mwenyewe au mmoja wa wale ambao unaishi pamoja?

- [1] Yes > [Continue with CV10]
- [2] No > [Go to CV24]

[X] Self [Y] Household member

CV10. Tell me how many times within the 1 year we have talked about that you in the member of your household have been victims of crime?/Niambie ni mara ngapi, kwa mwaka mmoja ambao tunaongea, ambapo wewe au ule mnaye ishi naye amkumbwa na uhalifu

- [1] One time/mara moja
- [2] Two times/Mara mbili
- [3] Three times/ Mara tatu
- [4] More than three times/Zaidi ya mara nne
- [5] Don't Know/Refused/Sijui/Amekataa

CV11. How long ago was the last instance of the crime you have mentioned? Ni muda upi uliopita tangu ukumbwe na uhalifu? [Read out options to probe]

- [1] Last 3 months/haijapita miezi mitatu
- [2] Last 6 months/Haijapita miezi sita
- [3] Last 1 year/haijapita mwaka mmoja
- [4] Over 1 yr ago/ Zaidi ya mwaka mmoja uliopita
- [5] Don't Know/Refused/Sijui/Amekataa

CV12. In the last instance, tell me what kind of crime was it? Kwa uhalifu uliofanyiwa hivi karibuni, Niambi ni nini kilitendeka? [*Single mention]

- [1] Assault/Kupigwa au kuumizwa
- [2] Pick-pocketing/Kuibiwa mfukoni
- [3] Mugging/Kunyang'anywa bidhaa barabarani
- [4] Sexual abuse /Kubakwa
- [5] Burglary/Wizi wa kuvunjiwa nyumba
- [6] Robbery with violence/Wizi wa kimabavu
- [7] General robbery/Wizi wa kawaida
- [8] Arson/Kuchomewa nyumba au bidhaa
- [9] Murder/Mauaji
- [10] Car-jacking/Kuibiwa kwenye gari

- [11] Kidnapping/Mtu kutekwa nyara
- [12] Illicit brew/Pombe haramu
- [13] Drugs/Madawa ya kulevya
- [14] Other/Nyingine _____

Continue with list

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CV13. At what time was the last instance of the crime you have mentioned committed? Ni saa ngapi wakati uhalifu huu tunaongea kuhusu ulifanyika? [Read out options to probe]

- [1] Early in the morning/Asubuhi sana
- [2] Mid-Morning/Mchana
- [3] Mid-Day/Adhuhuri
- [4] Early Afternoon/Alasiri mapema
- [5] Late Afternoon/Alasiri karibu na jioni
- [6] Evening/Jioni
- [7] Early night Mid/Usiku
- [8] Night Late at night/Usiku wa manane
- [9] No idea when crime was committed/Sijui ilifanyika saa ngapi

CV14. Where was the crime committed?/Uhalifu huu ulifanyiwa wapi? [Read out options to probe]

- [1] In the house/Ndani ya nyumba
- [2] Outside the house but nearby/Nje ya nyumba lakini karibu na nyumba
- [3] At a public place/Kwenye mahali palipo na watu wengi
- [4] On the way/Kwa barabara
- [5] Other (Specify)/Mahali pengine (Elezea) _____
- [6] Don't Know/Refused/Sijui/Amekataa

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CV15. In that last incident, how many attackers were present? /Kwenye tukio la mwisho, kulikuwa na wahalifu wangapi?

- [1] One/Mmoja
 - [2] Two/Wawili
 - [3] Three/Watatu
 - [4] More than three/Zaidi ya watatu
 - [5] I do not remember /Sikumbuki
- > [Continue with CV16]
- > [Go to CV18]

CV16. Did the attackers use any kind of weaponry?/Wahalifu hao walitumia aina yeyote ya silaha?

- [1] Yes/Ndio > [Continue with CV17]
- [2] No/La > [Go to CV18]

CV17. If the attackers used any weapons, what kinds of weapons were they?/Kama wahalifu walitumia silaha, zilikuwa silaha za aina gani?

- [1] Clubs/Rungu
 - [2] Matchets/Swords/Panga
 - [3] Rocks/Mawe
 - [4] Axes/Shoka
 - [5] Gun/Pistol/Bunduki
 - [6] Others (Specify)/Nyingine (taja) _____
-

CV18. Did you recognize all or some of the attackers? /Je uliweza kuwajua hao wahalifu

- [1] Yes > [Continue with q19a]
- [2] No > [Go to CV20]

If you could recognize them, were they...[Read out option in CV19a... and then to CV19b/Kama uliweza kuwatambua, walikuwa

CV19a. Age/Umri wao

- [1] Young/Wachanga
- [2] Middle Age/Umri wa kadri
- [3] Old/Wazee
- [4] A mixture/Mchanganyiko
- [5] Don't Know/Sijui [Do not read out]

CV19b. Gender/Jinsia

- [1] Male(s)/Mwanaume/Wanaume
- [2] Female(s)/Mwanamke/Wanawake
- [3] A mixture/Mchaganyiko
- [4] Don't Know/Sijui [Do not read out]

CV20. Did the police know about that incident? /Polisi walijua kuhusu kuhusu tukio la uhalifu huo?

- [1] Yes/Ndio > [Continue with CV21]
- [2] No/La > [Go to CV22]

CV21. How did the police found out?/Polisi walijua? [*Multiple mentions apply]

- [1] I reported to the police personally/Nilienda kupiga ripoti mimi mwenyewe
 - [2] Through another household member/neighbour/Kupitiakwa wengine tunaokaa nao
 - [3] Police came to the scene themselves/Polisi walikuja wenyewe
 - [4] An unknown person called the police/Mtu nsiyemjua liwaita polisi
 - [5] Some other way (Specify)/Njia nyingine (taja) _____
 - [6] I don't know how the police found out/Sijui polisi walijua
-

CV22. Why was the police not informed about the incident?/Kwa nini polisi hawakuarufiwa? [*Multiple mentions apply]

- [1] It was a trivial offense/Ilikuwa kosa ndogo tu
- [2] I feared the police would not act/Niliogopa polisi hawat chukua hatua
- [3] I feared the police may demand a bribe/Niliogopa polisi watataka hongo
- [4] I did not have any proof/Sikuwa na ushahidi wowote
- [5] I reported the offender to other authorities/Nili ripoti kwingine
- [6] I recovered my stolen property/Nilirudishiwa mali yalioibwa
- [7] Other reason (Specify)/Sababu nyingine (taja) _____

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CV23. How satisfied were you with the way the police handled that case? /Uliridhika vipi kwa vile polisi walivyoishughulikia kesi hiyo? [Read out options]

- [1] Very satisfied/Niliridhika vilivyo
- [2] Satisfied/Niliridhika kadri
- [3] Dissatisfied/Sikuridhika
- [4] Very dissatisfied/Sikuridhika kamwe
- [5] No idea/do not know/Sijui [Do not read out]

CV24. [ASK ALL] Concerning crime in your area, how would you generally describe how the police usually tackle crime?/Kuhusiana na uhalifu kwa eneo hili, unaweza kusema polisi hushughulikia vipi na uhalifu [Read out options]

- [1] The police patrol the area daily/Polisi huja hapa kila siku
- [2] The police come here once in a while/Polisi huja hapa mara kwa mara
- [3] The police only come when there is an incident/Polisi huja wakati kuna uhalifu
- [4] The police do not come here at all/Polisi huwa hawaji hapa
- [5] Don't Know/Refused/Sijui/Amekataa [Do not read out]

CV25. [ASK ALL] Generally, would you say, in the last 1 year, that police involvement with crime and maintenance of safety in this area has increased, decreased or remained the same/Ukiangalia mwaka mmoja uliopita, unaweza kusema kwamba kiwango cha polisi kushughulikia uhalifu na udumishaji wa usalama kwa eneo hili lime ongezeko, lime baki vile vile au limepungua

- [1] Increased/Umeongezeka
- [2] Remained the same/Umebaki vilevile
- [3] Decreased/Umepungua
- [4] Don't Know/Sijui/Amekataa [Do not read out]

CV26. Please give reasons for your answer above/Tafadhali peana sababu za jibu lako

--	--	--

CV32. Have you ever been a victim of any form of physical abuse?/Je umewahi kudhulumiwa kimwili (kupigwa) na mtu yeyote?

[1] Yes/*Ndio* [Continue with CV33]

[2] No/*La* (Go to CV36)

CV33. Who was involved?/Ni nani aliyehusika

[1] By a friend/*Na rafiki*

[2] Neighbour/*Na jirani*

[3] Relative/*Na mtu wa familia*

[4] Stranger/*Na mtu nisiye mjua*

[5] Other specify/*Nyingine (taja)* _____

CV34. Did you report the incident to anyone?/Uliripoti hili tukio kwa yeyote?

[1] Yes/*Ndio* [Continue with CV35]

[2] No/*La* [Go to CV36]

CV35. Who did you report to?/Uliripoti kwa nani?

CV36. [ASK ALL] Tell me, how safe do you feel you are in this area?/Je niambie, unasikia kiwango gani cha usalama unapoishi hapa?

[1] Completely safe/*Ni usalama kikamilifu*

[2] Slightly safe/*Nina usalama kadri*

[3] Neither safe nor unsafe/ *hapo katikati*

[4] Slightly unsafe/*Sina usalama kadri*

[5] Completely unsafe/*Sina usalama kabisa*

[6] Don't know/ *Sijui Kabisa* [**Do not read out**]

CV37. Please give a reason for your answer above./Tafadhali peana sababu ya jibu lako

CV38: [ASK ALL] I will read to you a couple of statements about crime. Please tell me whether you agree or disagree with the following statements/Nitakusomea mambo kadha kuhusu uhalifu. Hebu nieleze kama unakubaliana au unakataa kuhusu mambo ambayo nitakuuliza sasa					
	Strongly Agree/ nakubali kabisa	Agree/ Nakubali	Neither/nor/ Sikatai au kukubali	Disagree/ Sikubali	Strongly Disagree/ Sikubali kabisa
[1]. Crime is a big problem in this area <i>/Uhalifu ni shida kubwa hapa</i>					
[2]. Crime is high here because the government does nothing <i>/Uhalifu ni mwingi hapa kwa sababu serikali haifanyi chochote</i>					
[3]. Crime in this area is on the increase <i>/Uhalifu hapa unendelea Kuongezeka</i>					
[4]. People here are not concerned about crime <i>/Watu hapa hawajali kuhusu uhalifu</i>					
[5]. Poverty is the key cause of crime here <i>/Umaskini unasababisha uhalifu hapa</i>					
[6]. I can contribute to help reduce crime <i>/Ninaweza kuchangia lilikupunguza uhalifu</i>					
[7]. Men are the major criminals/ <i>Wanaume wahalifu wakuu</i>					
[8]. Women are the major criminals/ <i>Wanawake ndio wahalifu wakuu</i>					
[9]. Young people are involved in criminal activities <i>/Vijana wachanga wanahusika na visa vya uhalifu siku hizi</i>					
[10]. We are organized as a community to fight crime <i>/tumejipanga kama watu wa eneo hili kupigana na uhalifu</i>					
[11]. My neighbour cares for my safety as well <i>/Jirani yangu pia hushughulikia usalama wangu</i>					
[12]. I discuss with my friends and neighbours about the crime situation/ <i>/Mimi hujadiliana na wenzagu kuhusu uhalifu</i>					
[13]. Community participation can help prevent crime/ <i>Jamii ya weza kusaidia kupunguza uhalifu</i>					
[14]. I don't believe that it is possible to prevent people from committing crimes/ <i>Siamini kuwa inawezekana kuzuia watu kufanya uhalifu</i>					
[15]. I think that my community needs more crime prevention programs <i>/Nafikiri kwamba watu wa mtaa huu wanaitaji kukingwa zaidi dhidi ya uhalifu</i>					
[16]. Poor court judgement increases crime/ <i>Kesi zikihukumiwa vibaya huongeza uhalifu</i>					
[17]. Women and children are the ones who suffer most from crime/ <i>Wanawake na watoto ndio huadhiriwa vibaya na mambo ya uhalifu</i>					

<p>D13. Which method of lighting do you mainly use?/Aina ya kuangaza nyumba kila wakati</p> <p>[1] Tin lamp/<i>Koroboi</i> [2] Wick lamp/<i>Taa yenye utambi</i> [3] Pressure lamp/<i>Taa ya kutumia pumzi</i> [4] Electricity/<i>Stima</i> [5] Solar/<i>Nguvu za jua</i> <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> [6] Other (Specify)/<i>Nyingine (taja)</i> _____</p>
<p>D14. What type of toilet facility do you use mainly?/Unatumia aina gani ya choo kila wakati?</p> <p>[1] Pit Latrine/<i>Choo cha shimo</i> [2] Water Closet with Cess tank/<i>Choo cha kutumia maji</i> [3] Others (specify)/<i>Nyingine taja</i> _____ <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></p>
<p>D15. Is the toilet facility shared by more than one person?/Choo hiyo inatumiwa na zaidi ya mtu mmoja?</p> <p>[1] Yes/<i>Ndio</i> [2] No/<i>La</i></p>
<p>D16. House wall type/Aina ya ukuta</p> <p>[1] Mud/<i>Matope</i> [2] Timber/<i>Mbao</i> [3] Brick/Stone/<i>Matofali/Mawe</i> [4] Iron Sheets/<i>Mabati</i> [5] Other(Specify) _____ <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></p>
<p>D17. Number of people sharing the house/Mnaka watu wangapi katika nyumba hii</p> <p>[1] 2 people/<i>watu wawili</i> [2] 3 people/<i>watu watatu</i> <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> [3] 4 people/<i>watu wanne</i> [4] Other (Specify)/<i>wengine (taja)</i> _____</p>

D18. Roofing material/Aina ya paa [1] Iron sheets/Mabati [2] Grass thatched/Nyasi <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> [3] Tiles/Matofali <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> [4] Other (Specify)/Nyingine taja _____		
D19. Floor material/Aina ya sakafu [1] Earth/Udongo <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> [2] Cement/Simiti [3] Wood/Mbao [4] Other (Specify)/Nyingine (taja) _____		
D20. Income level <i>/Kiwango cha mshahara kwa mwezi</i> [1] Less than 1000 [2] 1000.00 to 3000.00 [3] 3001.00 to 5000.00 [4] 5001.00 to 7000.00 [5] 7001.00 to 9000.00 [6] Over 9000.00 [7] Don't know/Sijui	D21. What ethnic community do you belong to?/Kabila lako ni lipi? _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	D22. Language of interview <i>/Lugha ya mahojiano</i> [1] English [2] Kiswahili [3] Both
D23. Number of persons living here/Ni watu wanagapi wanaoishi hapa? _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	D24. What political party membership do you belong/ Chama chako cha kisiasa [1] KANU [2] NARC-K [3] ODM-K [4] Other (Specify)/Nyingine (taja) _____ [5] I do not want reveal my Party/sitaki kusema chama changu	
D25. What in particular do you like about living in this area?/Nini haswa unapenda kulingana na vile unavyo ishi hapa? _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
D26. What in particular do you dislike about living in this area?/Nini haswa haupendi kulingana na vile unavyo ishi hapa? _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Thank the respondent and close the interview		

APPENDIX 2

NAIROBI CITY SLUM SURVEY [NCSSS]

FOCUS GROUP DISCUSSION SCHEDULE

Introduction (5min)

- Moderator to introduce self and the project
- Moderator to explain how long the session is expected to run
- Moderator to explain to the participants that there are no wrong or right answers
- Moderator to ask participants to switch on their mobile phones

Focus Group Discussion objectives (5min)

- To discuss issues regarding crime and safety in the areas you live in with a bid to come up with recommendations about what could be done to prevent crime

Participant Consent (5min)

- Moderator to read the confidentiality statement to participants
- Explain that participants can ask for clarification at any time
- Ask for permission to record the discussion

Participant introduction (5min)

- Moderator to ask participants to go around the group and introduce themselves

Q1. What do you like to do in your spare time?/Mnafurahia kufanya nini

wakati wa mapumziko? (10min)

Every respondent should provide a response

Q2. Lets talk about life in general where you stay/Hebu tuongee sasa kuhusu maisha yenu ya kawaida mnapoishi?. (10min)

- a. What if any would you consider being the problems affecting you and your neighbors where you live? /Ni nini mnaona kuwa shida zinazo wakumba katika sehemu mnazoishi?

NOTE: [List all of them, ask the respondents to rank them and then probe on each of the listed problems] If water, sanitation, durable housing, enough living space and fear of eviction and CRIME are not mentioned, probe late]r.

Q3. Let's now talk briefly about crime (20min)

- a. What comes into mind when the word crime is mentioned?/Nini kinachokuja katika fahamu wakati neno uhalifu linapotajwa?
- b. Is there any form of crime in your area? /Kuna aina yeyote ya uhalifu kule mnakoishi
- c. If so, what kind of crimes would you say are more prevalent in the area?/Ikiwa ni hivyo, mnaweza kunitajia ni zipi ambazo nyinyi hukumbana nazo kule mnakoishi?

[List all of them and then probe on each of the listed problems using the questions below]

- I. How frequently do these crimes occur in this place?/Uhalifu huo hufanyika mara kwa mara?
 - II. Who do you think suffers most when particular crimes occur? Why do you think so? /Ni nani wale ambao huumia sana kutokana na uhalifu huo? Kwa nini unafikiria hivyo?
 - III. At what time does crime usually occur? Why do you think so?/Uhalifu huo hutokea kama saa ngapi sana sana? Kwa nini unafikiria hivyo?
- d. According to you, what are the main causes of crime in your area?/Kulingana na wewe, ni nini husababisha uhalifu katika sehemu hizo
 - e. How fearful are you that crime some form of crime will occur in your area?/Una hofu kuwa kuna uhalifu utakao tokea katika sehemu unayo kaa?
 - f. How would you compare crime levels in your area last year and this year? Would you say it has increased or decreased?/Kulinganisha mwaka huu na mwaka uliopita, unaweza kusema kama uhalifu umezidi au umempungua?

Q4. Let's now talk about how the police deal with crime in this area?

(20min)

- a. Do people who are affected by any form of crime in your area report the matters to police?/Watu ambao hukumbwa na uhalifu, wao huenda kuripoti kwa polisi?
- b. If not, why do people often do not report crime to the police?/Ikiwa hawa ripoti, je ni kwa nini?
- c. Do you think that the police are doing a good job in handling crime in this area?/Kulingana na maoni yenu wenyewe, polisi wanafanya kazi nzuri au mbaya kwa kudumisha usalama?

Q5. Let's now talk about how crime can be prevented in your area (20min)

- a. For example if you knew somebody in your neighborhood is a criminal, would you report the person to the police? If yes why? If no, why?/Kwa mfano, ukiwa unajua kwamba kuna mhalifu katika eneo mnaloishi, unaweza kupeana ujumbe huu kwa polisi? Kama ndio, kwa nini? Kama sivyo, kwa nini?
- b. Do you think the government is doing enough to curb crime in this area?/Mnafikiria kwamba serikali inafanya mambo ya kutosha ya kupunguza uhalifu?
- c. I want to capture your imagination. If for example the police force was a tree, what kind of tree would it be/Nataka muweze kufikiria (kuimajin) hii, kama kikosi cha polisi kingekuwa mti, kinge kuwa mti wa aina gani?

Q6. Let's now talk about safety and crime prevention in your neighborhood

(20min)

- a. How safe do you and or people in your neighborhood feel?/Unasikia usalama kiasi gani wewe au majirani mnakoishi?
- b. What kind of crime prevention mechanisms do you have in your area? How effective do you think these mechanisms are in preventing crime?/Kuna mbinu zipi za kukabiliana na uhalifu kaitak sehemu mnazoishi?Je mbinu hizi husaidia aje kurekebisha hali ya uhalifu.
- c. Which is the best way of preventing crime in this area? /Ni jinsi gani nzuri ya kupunguza uhalifu?

END

APPENDIX 3

TRAINING MANUAL FOR FIELD ASSISTANTS

Twenty field assistants underwent training in order to familiarize themselves with the survey objectives and requirements. The following were key aspects by which the interviewers were being trained on. They were trained by the research for three days. (5 field assistants interviewed each of the 4 slums)

Survey objectives - The field assistants were introduced to the objectives and the purpose of the study. This was to orientate them to know what kind of scope the study is going to take.

Procedures for sampling households - With this regard, the field assistants were trained on how to sample households using the household skip routine procedure using the random walk method within the densely populated slum settlements

Procedures for identifying target respondents - Additionally, field assistants were trained on how to use the Kish Grid that randomizes the person who is to be interviewed within that household. Emphasis was placed on how to perform call backs and substitutions where the target respondent is not available.

Questionnaire administration - The field assistants were trained on how to administer the questionnaire. With this regard they will be trained on the expectations of each question and how each question should be asked.

Additionally, they will be trained on how to follow skip patterns within the questionnaire.

Procedures for probing on open-ended questions - Open-ended questions provided an avenue for getting verbatim answers to some of the questions presented to the respondent. These kinds of questions required careful and full probing to get reliable data. The field assistants were carefully trained on how to probe on such questions and to get satisfactory answers.

Interviewer etiquette - The field assistants were trained on how to present themselves and establish a rapport with respondents. This was done by training them on how to introduce themselves to the respondents and ask for permission to do the interviews

Respondent contact sheet information - The field assistants were also trained on how to manage the interviewing process by logging down to a predetermined call sheet form all the contacts they made and the disposition of the same contacts.

Quality control procedures - The field assistants were trained on how to perform back checks and also on how to do questionnaire editing and error checking after the interviews are complete.

Coding of open-ended questions - The field assistants also were trained on how to code the open-ended questions and to develop a code frame that is objective and analyzable.

APPENDIX 4

INTERVIEW RESPONDENT ACCORDING TO KISH GRID

Firstly, I need to decide whom I should Interview from this household. Can you give me the names and ages of all the adults aged between 18 and 50 who are living here at the moment

RECORD BELOW AND COMPLETE SELECTION PROCESS AS INSTRUCTED SELECTION OF RESPONDENT FOR INTERVIEWING

1. List all the adults aged 15 and above living in the household together with their age whether or not they are in at present. Start with the oldest and work down to the youngest.
2. Take the last figure of the questionnaire number and find the same number in the top line of the **Kish Grid below**.
3. Look along the row of the last person in the list. Where this meets the column of the last digit of the questionnaire number is the number of the person on the list to be interviewed.
4. Refer back to the list of family members and ask to speak to the person whose number is the same as the one you have taken out of the **Kish Grid**.
5. If that person is not at home, **you must** arrange to call a second time and a third time to interview that individual. **Calls may be spread over two days**. If he is not there on the third occasion, you should select another adult in the household by taking the number in the Kish Grid **directly above** the number you took originally on even number dates or **directly below** on odd number dates.
6. If that person is also not available, go to another household.
7. Record calls details on front of questionnaire.

Last digit of the questionnaire number

Number of Adults in Household.	AGE	1	2	3	4	5	6	7	8	9	0
1		1	1	1	1	1	1	1	1	1	1
2		2	1	2	1	2	1	2	1	2	1
3		1	2	3	1	2	3	1	2	3	1
4		1	2	3	4	1	2	3	4	1	2
5		4	5	1	2	3	4	5	1	2	3
6		4	5	6	1	2	3	4	5	6	1
7		3	4	5	6	7	1	2	3	4	5
8		3	4	5	6	7	8	1	2	3	4
9		2	3	4	5	6	7	8	9	1	2
10		1	2	3	4	5	6	7	8	9	1

SERVICE CONTRACT AGREEMENT

This is a binding contract between Fr. John Ndikaru (Myself /Principal Researcher) and the undersigned to undertake the “**Crime Differentials in Metropolitan Slum Areas; An Analysis of the City of Nairobi Slums**” project under the following terms and conditions.

Name..... ID No.....

Mobile phone No..... Service Contract No.....

Physical address.....

You are hereby temporarily employed to the position of a **Field Assistant**, for this survey project. Your job is to conduct field interviews at the household level. While working for this project, you are required conduct yourself with dignity and high integrity. You are required to carry out the assigned tasks for a period not exceeding 5 weeks. However, if there will be any need of your services after the initial contract period has expired, a new contract will be issued and new terms re-negotiated. Additionally you must follow work load distribution as assigned.

You must maintain high degree of confidentiality. Matters pertaining to this project should not be disclosed to unauthorized persons.

Upon completion of the project, you will be entitled to a wage of **Kshs. 100** per every questionnaire completed. Please note that the wage will be payable after I am fully satisfied with your work. I reserve the right to provide you with the total number of questionnaires you will administer in this project and also the weekly quota requirements. The frequency of wage payment will be done weekly. However, in case of any problems with the quality of work, I will withhold payment until every query has been resolved.

Note that you are expected to understand all the procedures pertaining to this task before it begins.

This contract is sent to you in duplicate and we request you to sign and return one copy to signify that you have fully understood and accepted the terms and conditions pertaining to this service agreement contract.

_____/Date ___/03/2007
Signature (Field Assistant)

_____/Date ___/03/2007
Fr. John Ndikaru
Principal Researcher

MINISTRY OF SCIENCE & TECHNOLOGY

Telegrams: SCIENCE TEC", Nairobi

Fax No.
Telephone: 318581
When replying please quote



JOGOO HOUSE
HARAMBEE AVENUE
P. O. Box 60209-00200
NAIROBI
KENYA

MOST 13/001/37C 72/2

14th February 2007

Rev. Fr. John Ndung'u Ndikaru
Kenyatta University
P.O. Box 43844
NAIROBI

Dear Sir,

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on, '*Crime Differentials in Metropolitan Slum Areas; An analysis of the City of Nairobi Slums*'

I am pleased to inform you that you have been authorized to carry out research in Nairobi for a period ending 30th September 2007.

You are advised to report to The Provincial Commissioner and Provincial Director of Education Officer Nairobi before embarking on your research project.

On completion of your research, you are expected to submit two copies of your research report to this office.

Yours Faithfully,



B. O. ADEWA
FOR: PERMANENT SECRETARY

Copy to:

The Provincial Commissioner
Nairobi

The Provincial Director of Education
Nairobi



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

P.O. Box 43844,
NAIROBI
Tel. No. 810901/9 Ext. 57530
E-mail: kubps@yahoo.com

Our Ref: (C82/15322/05)
Your Ref:

Date: 7th February, 2007

The Permanent Secretary,
Ministry of Education, Science & Technology,
P.O. Box 30040,
NAIROBI.

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION

I write to introduce Ndikaru John Ndung'u who is a Postgraduate Student of this University. He is registered for a Ph.D. degree programme in the Department of Sociology.

Mr. Ndung'u intends to conduct research for a project entitled, "Crime Differentials in Metropolitan Slum Areas: An Analysis of the City of Nairobi Slums, Kenya"

Any assistance given to him will be highly appreciated.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'J. O. Ifukho'.

J. O. IFUKHO
FOR: AG: DEAN, GRADUATE SCHOOL

C.C. Registrar (Academic)
Ag. Dean, GS - to see on file
Dean, School of Humanities and Social Sciences
Chairman, Department of Sociology



JOI/wm



Mathare Slum Settlement in Nairobi



Source:
QUICKBIRD SATELLITE IMAGE OF MATHARE DATE: 11 FEBRUARY 2002
ALTITUDE: 450KM
ORBIT TIME AND SPEED: 93.5 MINUTES, 7.1 KM PER SECOND
MAXIMUM RESOLUTION: 61 CM



