

# *RESEARCH THESIS*



## POTENTIAL OF PEDESTRIAN STREETS AS TOOL TO ENHANCE SOCIAL INTEGRATION

**This Report has been Prepared and Submitted as a Partial Fulfillment of the  
Requirements for the Masters of Arts Degree in Urban and Regional Planning.**

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**UNIVERSITY OF NAIROBI**


**DEPARTMENT OF URBAN AND REGIONAL PLANNING**



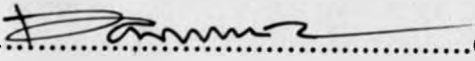
**Declaration**

I declare that this is my original work and I confirm to the best of my knowledge that this report has not been presented in this university or any other university for examination or for any other purposes.


This report makes a part of the requirements for the award of the degree of Masters of Arts in Urban and Regional Planning. in the Department of Urban and Regional Planning, University of Nairobi.

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**Dedication**

To my family, friends and everybody else who has in one way or the other contributed towards ensuring that I have successfully completed my studies, may the grace of God be upon you all the times.

**Inspiration**

...And to esteem them very highly in love for their work's sake; and be at peace among yourself ...and the fruit of righteousness is sown in peace of them that make peace.

(The 5:13; Jas 3:18)

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Mercy unto you, and peace and love, be multiplied – Jude 1:2. I confidently agree that the inclination to promote peace is the entry gates for integration and cohesion. I have gone the whole hog in the process of looking at the spatial ways of promoting integration and cohesion so that you and I could stay in peace, taking care of each other and having the good of oneself at heart.

I could not come this far without your philanthropy and co-operation. To single out, I owe various willing people whom I consulted during the study, whom I interacted with in the process and who morally supported me, great felicitations. However as the author of this report, i accept full responsibility for any mistakes which might be contained here in.

I thank my Lord for His Grace and Favors He blessed me with: it was not by might or by power but by the Spirit of God that I have succeeded.

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## Glossary of Terms and Acronyms

Owing to the scientific nature of the subject, it was found it necessary to compile a glossary of technical terms and acronyms commonly used in the study in order to ease the difficulties of communication.

- **CBD** – Central Business District
- **CBOs** – Community Business Organizations
- **CCN** – City Council of Nairobi
- **Cosmopolitan** – a place with people from different races
- **EIA** – Environmental Impact Assessment.
- **GaWC** - World Cities Study Group and Network
- **GPO** - General Post Office
- **IFLA** - International Federation of Landscape Architects
- **KICC** – Kenya International Conference Centre
- **NCBDA** – Nairobi Central Business District Association
- **NGOs** – Non Governmental Organizations
- **NHC** - National Housing Co-operation
- **UK** – United Kingdom
- **UN** – United Nations
- **UON** – University of Nairobi
- **UNEP** – United Nations Environmental Program
- **WSSD** -World Summit for Social Development
- **SPSS** - Statistical Package for Social Sciences

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## Abstract

“**PROUD** of our ethnic, cultural and religious diversity and determined to live in peace and unity as one indivisible sovereign nation”, is a preamble statement of **The Constitution of Kenya**. Into independence however, when nationhood becomes a cornerstone for progress, ethnicity – *negative* ethnicity – has arguably been the single aspect of diversity that has generated the greatest difficulties in enhancing national cohesion and integration (**National Cohesion and Integration Act, 2008**).

This study therefore focuses on investigating the potential of pedestrian streets as a tool to enhance the social cohesion and integration. This is by establishing an integrated network of Pedestrian Street that brings these ethnic and cultural diversities together, for mingling, interactions and appreciations, and as a result refutes any ethnic disparities. This is according to their functionality in terms of various activities and facilities provided, besides walking through. the design’s sense of mystery, locality, aesthetics and the choice of materials amongst other parameters. The study scope that contains the geographical and theoretical scopes makes the part of the research. Geographical scope has explained the study area which is the Nairobi Central Business District (CBD) particularly the Aga Khan Walk, the City Hall Way, Kimathi Street, Mama Ngina and Kaunda Street. Theoretical scope explains the relation between the Theory of Positive Interpersonal Ties and the study scope.

The study is guided by the research objectives which include; To evaluate the status of the pedestrian streets in terms of size and facilities in the Nairobi Central Business District (CBD); investigating the potential of street-level social integration and cohesion in Nairobi Central Business District; To identify the challenges, constraints and opportunities of establishing an integrated network of a pedestrian street that enhances social integration and cohesion and to propose street-level spatial strategies, programs and projects that would enhance maximum integration and cohesion.

In order to do proper investigations, certain research questions have been asked, as to what is the status of the existing pedestrian street in the Central Business District?; What is the potential of

street-level social integration and cohesion in Nairobi CBD?; What are the challenges, constraints and opportunities of establishing socially integrative and cohesive street in Nairobi CBD?; and Which strategies, programs and projects would enhance maximum street-level social integration and cohesion in Nairobi CBD?

In order to achieve the objectives two hypotheses have been developed and they include: An integrated network of pedestrian streets in the Nairobi CBD will not enhance communities' social integration and cohesion, this being the null hypothesis. An Alternative hypothesis then follows as interactions in the integrated network of pedestrian streets in the Nairobi CBD will enhance communities' social integration and cohesion. This leads to the study significance and ultimate definition of key terms.

The research methodology has been designed, which is based on case studies and literature by previous researchers on urban environments and pedestrian ways. To facilitate the process, research population has been identified, sampling procedures developed and data collection techniques that include observations and interviews as well as data recording and presentation tools. After data processing and analysis, there is possible use of findings, and recommendations have been done and then the conclusions whereby the hypothesis outcome has been explained.

## Chapter 1.0

### 1.0 Introduction

The management of Kenya's diversity since independence in 1963 has posed various challenges to enhancing national cohesion and integration. The single major impediment to the achievement of national cohesion and integration has been the mismanagement of national diversities and heritages, mainly for parochial political reasons. The difficulties experienced in Kenya with respect to nation building therefore revolve largely around the failure of governments to conceptualize and espouse multiculturalism, which involves appreciation, acceptance and promotion of cultural and ethnic diversities (**National Cohesion and Integration Policy**).

The need for integration has been pointed out in Chapter 2 of the **Constitution of Kenya** for instance, national values and heritage, its principles of governance including *national unity, social justice, inclusiveness, and equity*. Its Bill of Rights provides for equality and freedom from discrimination, guaranteeing the basic economic and social rights of all, while encouraging respect for diversity and fostering a sense of belonging.

LeoPort, who styled himself the minister for pedestrians, always insisted that developing pedestrianisation is a way to increasing accessibility of citizens and so it can maximize urban social and cultural integration. He alluded that Pedestrian streets are paths with the highest social role which walkers dominate. These streets are a tool for public activities related to urban economic, environmental quality and social health.

Nash, 1792 – 1835, a landscape designer cited that revitalization of pedestrian streets include establishment of basic facilities, change of materials and construction of landscape elements which are dilapidated as a result of man's activities thus accentuating the quality of walk ways. Prof. James Taylor, of International Federation of Landscape Architects (IFLA) quoted that, such improvements and modifications are mechanisms through which the urban users' satisfactions are boosted and thus increase their interaction. The design of pedestrian ways depicts human thought, feelings, culture and traditions and consequently suits the needs of

mankind. **Nash 1795**, quoting **Vanbrugh 1790**, explained that standards should be set under legislative and regulatory framework with inclination to maintain a scene of great value often for aesthetics and recreational purposes, although symbolic and emotive values are also considerably important for integration.

The pedestrian street has always been part of interaction structure in a city. Also, as **Lynch** expresses, they are the most important elements of contents of the city image: the network of habitual or potential meeting points through the urban complex, are the most potent means by which the whole can be ordered. In addition, in recent trends in urban design it is considered as a link, a place and one of the most important urban public spaces.

In recent years, the role of pedestrian streets as third places that “host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work” has been increased much more than before. Also, it is emphasized on creating an attractive environment for walking and resting. UK standards recommend “Applying the five Cs: *Comfortable, Connected, Conspicuous, Convivial and Convenient* as standard can help to improve their performance” They provide spaces for parking, develop places for walking and provide a few other open spaces for residents, shop owners, employees and visitors to socialize, interact and relax. Outdoor activities in public spaces can be divided into three categories, each of which places very different demands on the physical environment: necessary activities, optional activities and social activities”. As **Jan Gehl (2000)**, argues that in higher quality public spaces, a wide range of optional (social) activities such as taking a walk to get a breath of fresh air, greeting, conversations, passive contacts, etc. tend to occur.

## 1.1 Background To The Research Problem

Plate 1.0: A photo showing a background of Uhuru Park; a recreational facility



Source: Author's Site Visit, 2012

The above considerations amongst others form the basis of this study. They explain that a pedestrian street is a necessary tool to enhance people's interaction thus promotes social integration and cohesion.

Inclusiveness of various facilities in the streets fosters establishment of variety of social activities needed by the public for social interaction (P. Jones and N. Boujenko, 2007). People congregate for different reasons including walking through, waiting, meditation and resting, cultural activities, outdoor eating, religious activities, and public awareness amongst others. (Nash 1835). Therefore, outstanding theorist, Jane Jacobs acknowledges every effort towards development of pedestrian spaces in the cities as a factor for making social liveability therein: "Lowly, unpurposeful and random as they may appear, sidewalk contracts are the small change from which a city's wealth of public life may grow". Fred Kent, director of New York urban planning in the environmental context deems the responsibility of urban planners and designers significant and believes that through policy towards facilitating pedestrian interaction, moreover

presence of citizens in the pedestrian streets would be seen and accordingly the prosperity of public areas and increase of social interactions: "if they allocate this city space to the most accessed public areas and presence of the citizens, these areas will get more active"

Furthermore, more social communications arise from constructing pedestrian areas, leading in decrease of social crimes and abnormalities and moreover increases the social union and joining against society's external intimidator factors. Pedestrian Movement in the streets is also a "Constituter of Sustainable Cultural Development"

**J. Jacobs**, the author of *"The failure of modern town planning"*, quotes that urban social integration is not achieved satisfactorily as pedestrian streets have only been established to link other areas through walking. They lack facilities for social intermingling, that promotes more and free interaction to whet social needs. Lack of policy framework, usually constitute to lack of such public spaces.

## 1.2 Problem Statement

Various policy measures since independence were argued to be designed to promote nationhood, with outcomes that largely hampered national cohesion and integration. Thus, for example, Sessional Paper No. 10 of 1965 championed the nationwide reduction of poverty, disease and ignorance (**National Cohesion and Integration Act 2008**).

National cohesion and integration embraces unity of purpose in the citizenry's participation in economic, social and political processes. It calls for equity in the generation and sharing of the country's resources, places priority on existence of peace and security, and supports inclusive development that takes into account social, cultural, political and economic realities. Being short of spatial policy, that promotes integration and cohesion results into socio-cultural disparities than equalities.

Achieving maximum urban interactions requires a network of spatial spaces, which act as crowd pooling points. Nairobi Central Business District (CBD) does not have a network of such interactive pedestrian streets and the existing Aga Khan Walk lack the capacity to achieve this noble task effectively. It lacks efficient facilities that may cultivate varied interactive activities that may be deemed vital to promote social integration. The entire CBD does not have integrated system of pedestrian spaces and it is not clear the reason as to why such facilities are deficient.

### 1.3 Purpose Of The Study

The study aims at establishing the potential of the pedestrian streets to promote urban social integration. This is perceived to be achieved through planning and designing of spaces which have facilities that bring people together for social interaction, appreciate cultural diversity thus promotes unity among all citizens. The study therefore will recommend for a spatial policy that enhances the establishment of pedestrian spaces, which promotes more interactions for ultimate social integration.

### 1.4 Study Scope

#### 1.4.1 Theoretical Scope

**The Theory of Positive Interpersonal Ties** - The beating heart in the field of group dynamics is nurtured by the idea that positive interpersonal interactions are at the foundation of social processes. **Laumann (1973, pp. 111)** noted:

*"Intimate face-to-face interaction, whether in dyadic or larger group relationships, has long been recognized to be of crucial importance in the formation of an individual's basic personality or self-conception . . . , the development and maintenance of myriad attitudes towards the world, the determination and social control of "appropriate behavior". . . , and the maintenance of a "motivational commitment to participate". . . . Indeed, the intimate face-to-face group is often held to form the critical "primary environment" by which an individual is related to the larger society . . . ."*

Thus, many investigators have emphasized the extent of positive interpersonal ties among persons as a basis of social cohesion (**Cartwright 1968, Gross & Martin 1952, Lott & Lott**

1965). Moreno & Jennings (1937) argued that social cohesion is indicated by the number of mutual dyadic ties within the group. Festinger et al. (1950), along with many others (e.g., Frank 1996, Frank & Yasumoto 1998), have treated the density (or relative density) of interpersonal relations in a group as a group-level measure or basis of cohesion.

The study therefore aims to promote positive social inter-personal ties among varied socio-cultural groups through interactions in an integrated system of pedestrian streets. In so doing there will be the resistance of these groups to disruptive forces that create conflicts and hatred as such cohesiveness is associated with the strength of the relational bonds among group members. There will thus be an increase of public interactions as well as sense of enjoyment through various cultural, economical and social activities established in the streets. By so doing, the walk way becomes people's most preferable social space at the expense of other meeting areas.

#### **1.4.2 Geographical Scope**

The study area is in Kenya, Nairobi County and in the Nairobi City Centre. Nairobi Central Business District (NCBD) is the most appropriate area of study as it contains varied activities besides being located at the centre of the entire city. It consists of major vehicular streets with stop-over and terminus with pedestrian walk ways connectivity. These walk ways are situated along the vehicular streets. The Aga Khan Walk posing as the purely pedestrian walkway within the Nairobi Central Business District, covering a span between Haille Selasie Avenue, across Harambee Avenue to City Hall Way and runs parallel and close to the Moi Avenue. Neighbouring the CBD is the Uhuru and Central Parks, while the Jevanjee gardens is within. The isolated area for investigation will therefore cover the entire Aga Khan Walk including Kimathi Street which was once part of Aga Khan Walk, the Mama Ngina Street straight and through Kaunda Street to Uhuru Highway. City Hall Way that starts from Moi Avenue and ends at Uhuru High Way is part of the study area.

##### **a) Choice Criteria for the Study Area**



The CBD is unique in that it is the only district of the city with a purely pedestrian street and associated open spaces; it is the focus of commercial, social, administrative, religious and educational activities amongst others, all of which are geared towards improving human habitation in the city.

The streets combined form an integrated system of streets and they have joined each other in a unique manner. **Aga Khan Walk** poses as the only purely pedestrian street in the CBD and has a terminus at the Railway Bus Station which acts as a collection point for people from all parts of Nairobi and Kenya. Therefore Aga Khan Walk is a major thoroughfare to bring these people into the city centre, offering them a chance to intermingle freely as they walk, exposes them to commercial outlets alongside, and to religious and recreational facilities around. Along the walkway are open spaces; the Memorial Bomb Blast Park and the space between the Co-operative House and the House of Leather, opposite the Tell Com Building. These spaces offer quiet environment and conducive for socialization. There is a sunken vehicular parking space adjacent to the walkway and Harambe Avenue for people with vehicles, another one at Ken Com area.

**City Hall Way** exposes one to the Tom Mboya Monumental Site with a seating space around and a lavatory facility and surrounded by expansive space with restaurants and the Kenya National Archive. This street is of a mixed use for vehicular and pedestrians; it has a bus stop that create another point of mass collection, with an ample space around the Ken Com Building for pedestrians. Alongside the street there is a civic square at the Kenya International Conference Centre (KICC) and a park at the parliament grounds. Ahead is a church's square and the street terminates at the boundary of the Uhuru Park, the biggest recreational park in the CBD. So the street is an arena for peoples' integration.

**Kimathi Street** joins the Aga Khan Walk through an Arcade for the Hilton Hotel. The arcade has varied businesses alongside which provides another opportunity for intermingling and integration. Kimathi Monument is at the junction of Mama Ngina Street and Kimathi Street; it plausibly portrays the history behind the independence of the Republic of Kenya; the combination of Kenyatta Monument at KICC, Tom Mboya Monument and Kimathi Monument explain the historical co-existence of communities in Kenya. The street extends to Jevanjee

explain the historical co-existence of communities in Kenya. The street extends to Jevanjee Gardens through an arcade near Bazaar Complex. The arcade with varied commercial activities alongside and the garden are points of interactions hence integration and cohesion.

**The Mama Ngina Street** – at the junction of Moi Avenue the street exposes one to the Tom Mboya Monument and its surroundings, there is an open space between the City Hall Way and the Mama Ngina Street and next to Hilton Hotel. At the centre is a cyber café and the space is highly utilized space; the Kencom Bus Stop and the Ambassador Bus Stop are nearby. The street extends to the City Hall Annex Building and alongside there are commercial activities. Part of the street is a one way vehicular and partly pedestrianized. Presence of international communities is seen clearly, created by the Hilton Hotel, International House and the Hotel Inter Continental. This is unique in such a way that integration created here is both local and international.

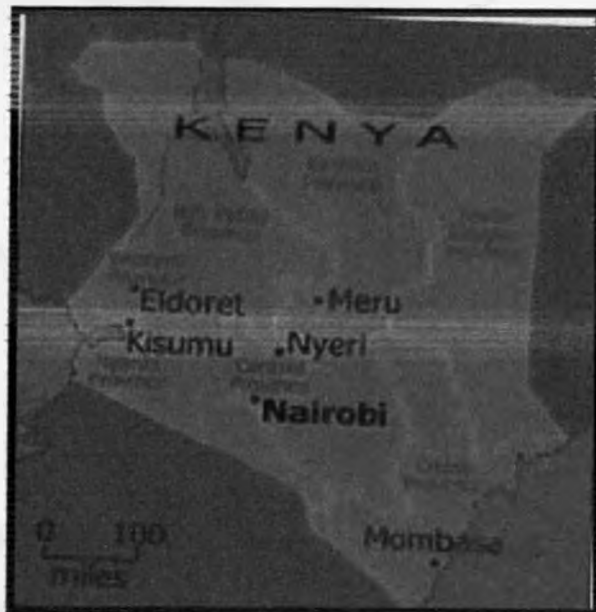
**Kaunda Street** – this joins Mama Ngina Street next to City Hall Annex and extends to the boundary of Uhuru Park. Alongside there is a Holy Basilica Catholic Church, its square and Up coming Catholic University, the Hotel Intercontinental and varied commercial outlets. By extension is a bus terminus at the General Post Office (GPO) that is a source of people for this street.

Cutting across the Mama Ngina Street is Wabera Street which ends at the University Way. Across the University Way is the University of Nairobi (UON) Square and the entire UON. Therefore by extension, this is a major source of people for Mama Ngina Street and the entire integrated system of pedestrian streets, not forgetting the entire CBD as a major source of users of the streets.

**Map 1.0: Showing Location of Kenya in the African Continent; Source: www.maps.com-2012**

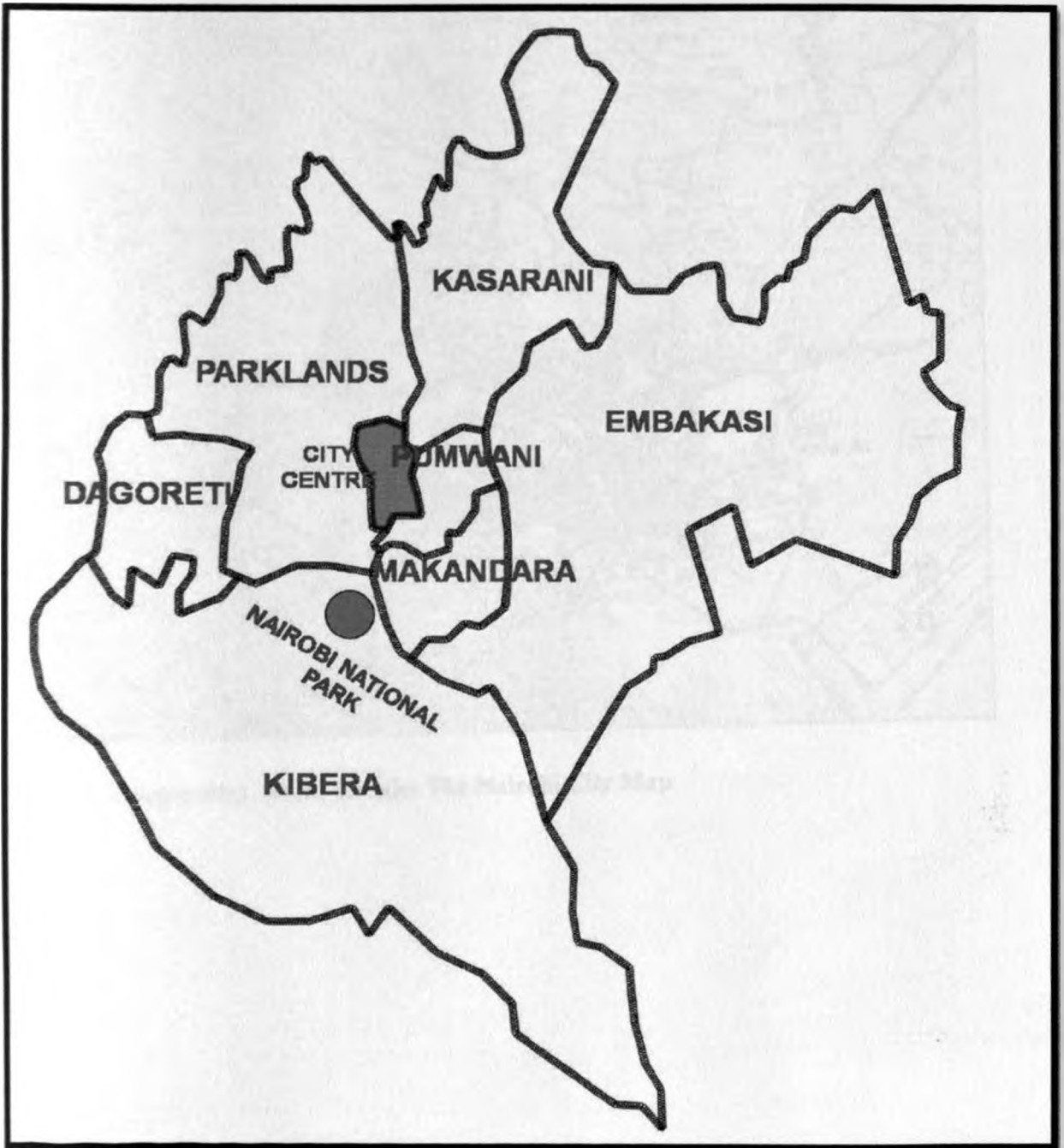


**Map 1.1: Showing the Location of Nairobi County in Kenyan Context; Source: www.maps.com-2012**



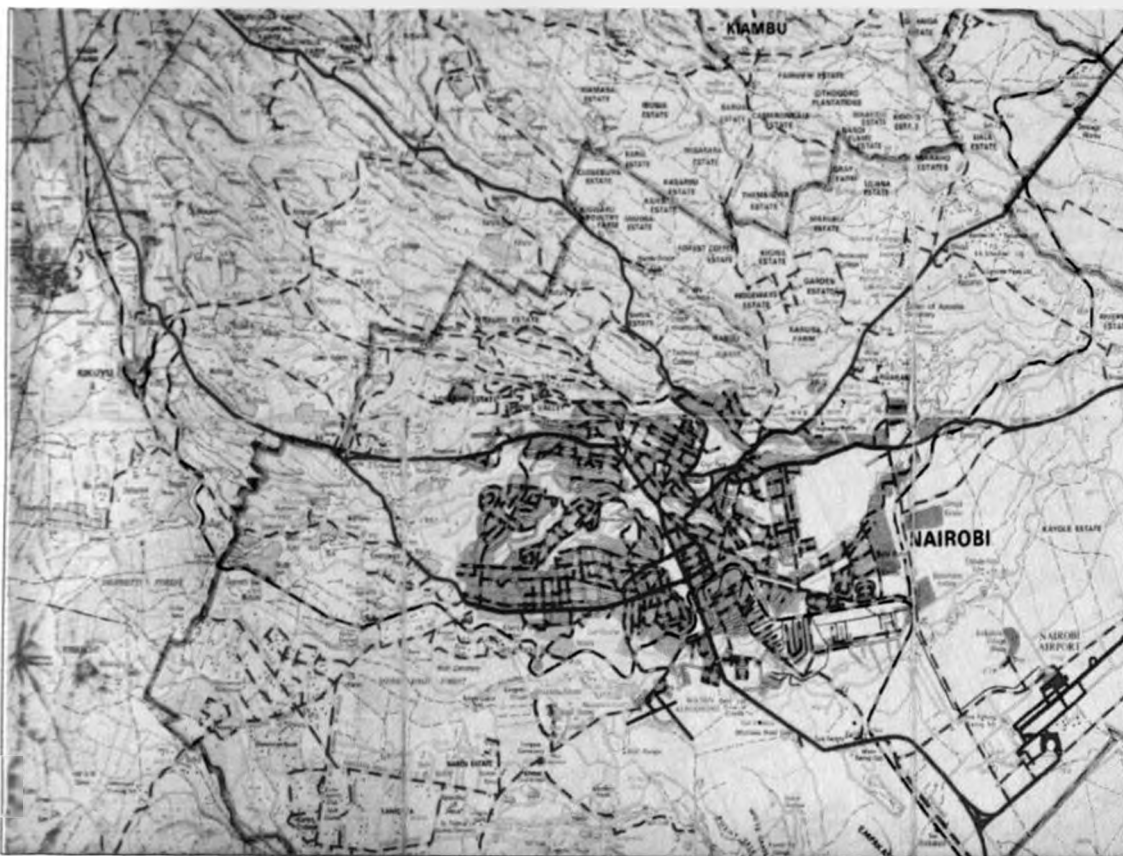
**1.2: Map of Nairobi County Showing the Location of the City Centre**

1.2: Map of Nairobi County Showing the Location of the City Centre



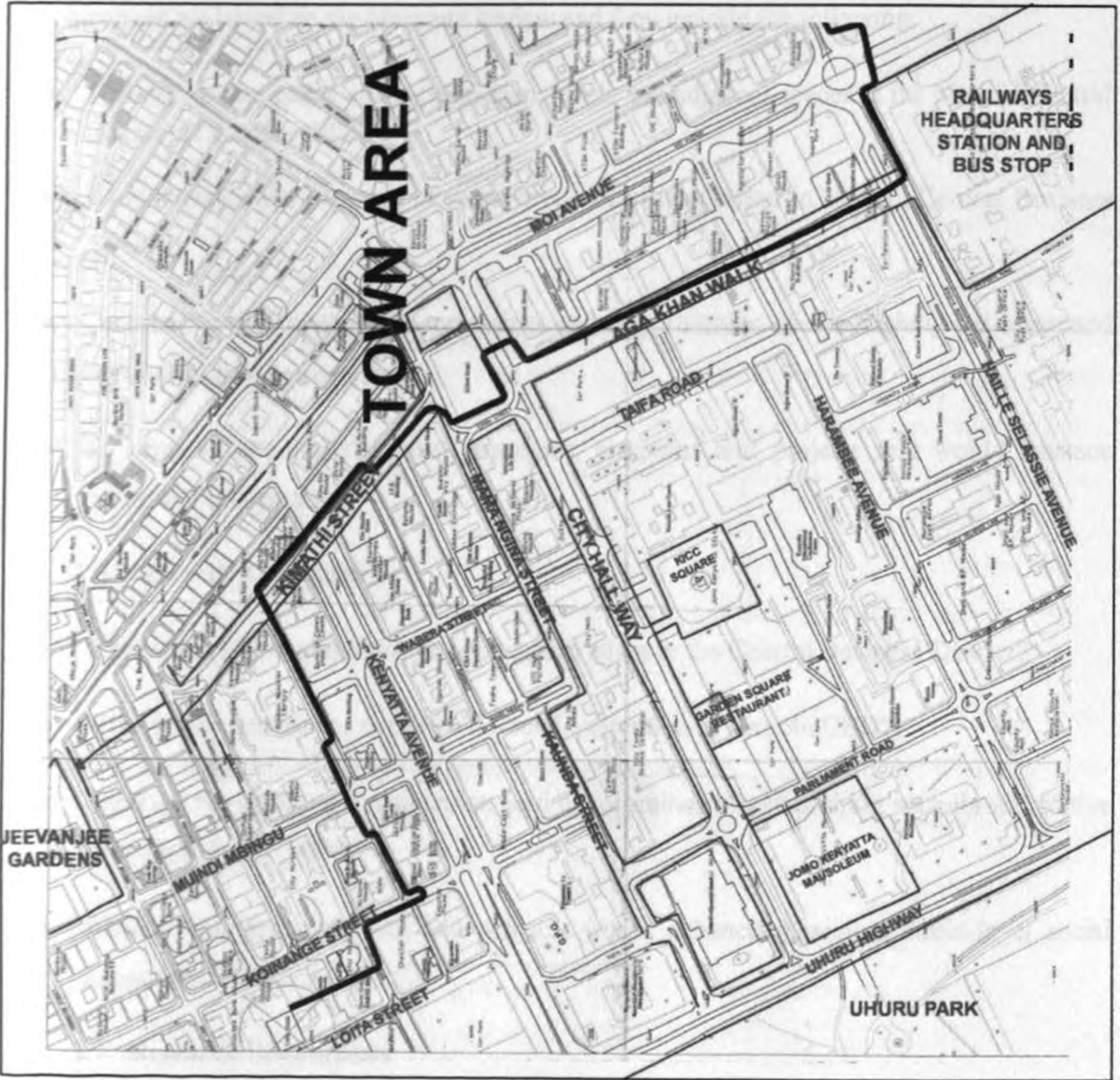
Source: Adopted from Survey of Kenya; 2012

**Map 1.3: The Nairobi City and the Adjacent Hinterland**



**Source:** [http. www. Google:](http://www.Google.com) The Nairobi City Map

Map 1.4: Location of the Study Area within the CBD (marked red lines)



Source: Adopted from the Nairobi City Council, 2012.

Scale: 1:100

### **1.5 Research Objectives**

The objectives are based on the literature review and they include the following:

- To evaluate the status of the pedestrian streets and adjacent spaces in the Nairobi Central Business District (CBD).
- To investigate the potential of street-level social integration in Nairobi Central Business District.
- To identify the challenges, constraints and opportunities of establishing an integrated network of a pedestrian street'.
- To propose street-level spatial strategies, programs and projects that would enhance maximum integration.

### **1.6 Research Questions**

- What is the status of the existing pedestrian street in the Central Business District?
- What is the potential of street-level social integration in Nairobi CBD?)
- What are the challenges, constraints and opportunities of establishing socially integrative street in Nairobi CBD?
- Which strategies, programs and projects would enhance maximum street-level social integration in Nairobi CBD?

### **1.7 Research Hypothesis**

#### ***a) Null hypothesis***

Physical characteristics of pedestrian spaces have no influence on people's interactions.

*b) Alternative hypothesis*

Physical characteristics of pedestrian spaces have influence on people's interactions.

**1.8 Study Justification and Significance**

The subjective dimension of social cohesion and integration relates to the extent to which members of society feel that they are a part of both the society and the processes of integration. This dimension implies the need to measure social cohesion and integration through qualitative indicators that can nonetheless be monitored (**National Cohesion and Integration Act, 2008**). One way to address the issue of integration is through promotion and celebrating equality, ethnic and cultural diversities, by creating effective interactions and bridging activities such as sports, cultural work, shared space and establishing mechanisms for communication and information sharing.

The study therefore aims at establishing potential ways in which pedestrian streets can be used as a mechanism to bring multi-ethnic and multi-cultural communities together. Nairobi City particularly the Nairobi Central Business District poses as the best study area due to its location. Nairobi being the capital city of Kenya is the choice of all tribes of Kenya for jobs opportunities and consequently all tribes are represented. Nairobi is thus the home of all Kenyans and international citizens, hence a cosmopolitan city.

Pedestrian streets as studied in the literature review, **Fred Kent** quotes they are mechanisms through which social interactions are increased. Different recreational and other economical functions can be incorporated to attract and be accepted by not only the local inhabitants but also international citizens. These interactions are intended to destroy tribal and racial segregation and instead create equality and unity of purpose.

Consequently the study will create opportunities to employ measures that enhance sustainable activities in the pedestrian street, create relevant facilities and projects and help in the formulation of policies for spatial integration while maintaining the overall sustainable use of the



urban street resources. “The goal of sustainability ensures that neither the natural ecosystem nor the biodiversity are pushed over thresholds from which recovery is difficult”.<sup>1</sup>

### **1.9 Study Assumptions**

- Nairobi Central Business District is a multi-ethnic city district and therefore poses a good representative of the entire Kenyan communities.
- People within the city will prefer to meet at the integrated system of pedestrian streets due to easy accessibility and dynamic in use than any other open spaces within the city.

### **1.10 Definitions of Terms and Variables**

- National cohesion - this entails a process of constructing an integrated citizenry with a sense of belonging amongst members of different groups and from different regions, through the regulation and reconciliation of differences as well as competing interests and demands. The ultimate goal of national cohesion is to create an overarching national community that renders loyalty to competing ethnic, racial, regional, class and religious communities secondary and, if possible, irrelevant.
- National cohesion and integration is a process and an outcome of instilling and enabling all citizens to have a sense as well as a feeling that they are members of the same community engaged in a common enterprise, facing shared challenges and opportunities. National cohesion and integration encompasses unity, equality, freedom, democracy, absence of war, just peace, social justice and the rule of law.
- Revitalization – means to renew revive or rejuvenate from a poor state to an improved state in order to enhance the use of something or improve its appearance.

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<sup>1</sup> – French Antoine Lavoisier was the first to formulate such a law.

- Pedestrian streets are public places with full-time or part-time restrictions on motor vehicle use and are a major priority for people on foot, riding bikes and pushing carts.
- Landscape elements – facilities that are intended to be used in public spaces for different purposes such as screening, boundaries, control movement, seating, lighting etc
- Recreation – social activities for enjoyment or amusement such as sports, socialization, hide and seek roundtable games, chess, solitaire etc.
- Regulatory framework – set of rules and regulations that guide planning and design activities usually from the local authorities.

**Plate 1.1: View of unique buildings near the Aga Khan Walk**



**Source: Author's Field Study, 2012**

## Chapter 2.0: Literature Review

### 2.1 The Notion of Integration

Integration starts from an individual scale level and is passed on to another individual (inter-persons) and gives rise to social cohesion. Grounding the analysis of social integration on the explanation of individual membership attitudes and behaviors is consistent with the development of indexes of the overall condition of a group that are based on the distribution of these attitudes and behaviors. Without individual membership attitudes and behaviors there would be no distribution of particular attitudes and behaviors, and there would be no properties of the distribution in terms of which a group might be described as more or less cohesive.

The central tendency of distributions of individuals' membership attitudes and behaviors has been a widely used indicator of integration. **Libo (1953)** described the integration of a group by summing the people's reported levels of attraction to the group (society, community etc). **Israel (1956, p. 25)**, defined cohesion as, "the attractiveness of a group, which is the pooled effect or the average of the individual members' attraction to the group or their wish to remain in the group". Interpersonal disagreements and behavioral discord among group members may reduce their attraction to the group. Thus, the degree of attitudinal consensus or behavioral uniformity in a group has been employed by scholars as measures of group cohesion.

Social homogeneity is not mainly the result of membership selection (**McPherson & Smith-Lovin 2002**); endogenous mechanisms of interpersonal influence are probably involved in producing attitudinal consensus and behavioral uniformity (**Abelson 1964; Friedkin & Johnsen Annu 1990, 1999; Latan'e 1990**). These endogenous mechanisms may produce attitudinal agreement and behavioral concordance via sequences of interpersonal interactions in which members' attitudes and behaviors are influenced by the attitudes and behaviors of one or more other members. The production of social homogeneity from endogenous interpersonal influences requires pathways of interpersonal influence among group members, as well as group members who are susceptible to such influences. For instance, an influence network in which interpersonal

influence may flow directly or indirectly between all pairs of members will produce a near consensus if all members are sufficiently open to such influences.

**Hogg (1992)** in his theory argues that social integration that results into cohesion arises when individuals' identify themselves as members of a particular group and not as members of other groups. In-group identification triggers a de-individuated state in which group members reference their attitudes and behaviors to the prototypical norms that are most characteristic of the in-group and uncharacteristic of the out-groups. What is prototypical and what is not is implicit in the distribution of attitudes and behaviors of persons in a particular situation and, therefore, these norms arise automatically. Hogg argues that in-group prototypes are self-enhancing relative to out-groups whose members are usually characterized by negative stereotypes, and he suggests that such self-enhancement (i.e., a positive in-group prototype) is a fundamental human response to situations in which persons identify themselves as belonging to particular groups and not to others. He assumes that group members bring their attitudes and behaviors into conformity with their in-group prototypes and, thus, generate the positive attitudinal consensus and behavioral uniformity that are indicative of cohesive groups.

## **2.2 Antecedents of Social Network Structure**

**Festinger et al. 1950, Lott & Lott 1965**, explains that groups are often self-sustaining with respect to conditions that produce positive membership attitudes and behaviors. Groups are cohesive when they possess group-level structural conditions that produce positive membership attitudes and behaviors and when group members' interpersonal interactions maintain these group-level structural conditions. Many people understand the importance of retaining valued members, enlisting members' contributions to group activities and tasks, reducing the number of negative and increasing the number of positive relationships between members, resolving disruptive disagreements, achieving consensus, and encouraging a positive view of the group as a social unit. Because many people understand (or believe) that such things are important, they often act intentionally to bring them about. Social networks are formed in part from these intentional efforts to create and maintain various forms of social integration.

### 2.3 Suggestions for Changing Attitudes

Information Integration theory offers several options for those who want to create (or encourage) attitude change. Remember that an attitude can be made up of favorable and unfavorable information and that each piece of information has both weight and value. Also, a person's attitude is only (or primarily) shaped by the information that is salient, or that they remember). This means that if they knew a piece of information but forgot it, we may be able to persuade them by reminding them this idea. Ordinarily, we would not have to convince them that we are right about this piece of information, because it is something they once accepted. It can often be easier to remind them of an idea than to persuade them to accept a new idea. Of course, you have to remind them of something that supports the new attitude you want them to accept. (There is also some risk that if they haven't forgotten this idea, they will find your message repetitive and boring.)

With these factors in mind, Information Integration theory declares that there are six basic options for changing a person's attitude:

- Increase the favorability (value) of a piece of existing information that supports the desired attitude
- Increase the weight of a piece of existing information that supports the desired attitude
- Decrease the favorability (value) of a piece of existing information that opposes the desired attitude
- Decrease the weight of a piece of existing information that opposes the desired attitude
- Offer a new piece of favorable information
- Remind the audience about a forgotten piece of favorable information

For example, suppose that a person on one community (A) has a unfavorable attitude toward a person of different community (B) and that this attitude is based on the following pieces of information (mostly unfavorable, but some favorable):

- B is too illiterate.
- The people of B are pretty good.

- The people of B are snotty.
- My friends don't interact with B very often.

You could try to make change A's attitude in six ways. First, you could say that the people of B are not just good; they are fabulous (increasing the evaluation, or value, of an existing favorable piece of information). Second, you could suggest that the most important thing about B is their philanthropic nature and even the taste of the food they cook (increasing the weight of an existing favorable piece of information). A third option would be to try to persuade A that the B community is not really that snotty (decreasing the unfavorable, or value, of an existing piece of unfavorable information). Fourth, you could tell A that you really interact with B very much.

### 2.4 Pedestrianization

This is a term that refers to making of streets into pedestrian ways. This may consist of purely pedestrian streets or with non motorized means of transportation. It is done for various reasons, some of which include:

#### 2.4.1 It is a tool that knits people together

Walking is the simplest way of movement and is the only mode of transportation that is independent of any tool or device: "Pedestrian movement is the most natural, ancient and necessary form of human disposition in the environment". Pedestrian movement is among the few human activities that have kept its primary form despite the development of different kinds of technological, communications and transportation tools. In the meantime, all city-travels via any vehicle whatsoever begin with and end with walking. Meanwhile, walking is accepted as the best type of human interaction with the urban environment: "What makes pedestrians distinctive is that they are open and slow. These qualities enable walkers to truly experience and interact with their urban environment. It is walking that knits the structures, spaces and people of a city together". A full pedestrian network is an important indicator of urban sustainable development.

Also, as **Kevin Lynch, 1996**, expresses, paths (streets) are the most important elements of contents of the city image: "the paths, the network of habitual or potential lines of movement through the urban complex, are the most potent means by which the whole can be ordered. **Allan**

**Jacobs** has identified requirements to transform pedestrian streets into better public realms by studying great streets in detail. "Certain physical qualities are required for a great street. All are required, not one or two: accessibility, bringing people together, livability, safety, comfort, participation, and responsibility" A Pedestrian street in urban design is considered as a link, a place and one of the most important urban public spaces. So, all the ingredients of good place making can be applied for increasing the vitality of the streets. "Place making is not just design, it is a strategic approach to a collaborative system of relationships, and triple top line thinking that integrates the social, environmental and the economic". It is usually referred to as the five *Ps*: *Planet, Place, Product, Program and People* all of which should be considered in the process of good place making. In recent years, the role of pedestrian streets as third places that "host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work" has been increased much more than before. As **Jan Gehl** argues that in higher quality public spaces (pedestrian streets), a wide range of optional (social) activities such as taking a walk to get a breath of fresh air, greeting, conversations, passive contacts, etc. tend to occur.

Today, the unified street system is a global term that encompasses the basic ideas represented by the original **Woonerf** and **J. Pakzad, 2005**; Pedestrian streets are urban public spaces with the highest priority for walkers. They are known by different names in diverse countries; for example car-free zones, pedestrian zones, auto-free zones, traffic-free zones, auto-restricted zones, pedestrian areas, pedestrian malls and walkable streets. Pedestrian mall is a street lined with storefronts and closed off to most automobile traffic. Example is the *Stroget Street* in Copenhagen. Emergency vehicles have access at all times and delivery vehicles are restricted to either limited delivery hours or entrances on the back streets. Pedestrian mall means one or more streets or portions thereof, on which vehicular traffic is, or is to be, restricted in whole or in part and which is, or is to be, used exclusively or primarily for pedestrian travel.

Pedestrian movement provides direct access to the destination, is the best mode of displacing as regard to causing equality and social justice between all the persons in the society, causes to the health and is the safest and cleanest transportation mode, through simulating the curiosity and

involving all visual senses causes the public participation and education and through integrated planning and complete linking the urban pedestrian networks may take actions for rehabilitating some land uses and preventing destruction of natural resources (D. Engwicht, 2004).

#### **2.4.2 Pedestrian Movement Constituter of Sustainable Cultural Development**

In sustainable cultural development and particularly in the new millennium, it is emphasized that every person is a media and increase of communications and distribution of information among the persons of a society and this is considered as an important development factor. Whereas walking increases the random conjunctions and as a result causes further social interactions between the people, causes the creation of individual beliefs, ceremonies and increase of traditions and cultural interchanges as well. Furthermore, pedestrian areas are suitable places for performing street theatre, music and artistic exhibitions. Therefore have essential role for encouraging and introducing the unknown artists and revival of traditional arts (such as passion play and religious ceremonies) and promotion of the information. Pedestrian areas as regards have changed to an educational media of an extensive spectral cover of society people that will be effective for upbringing the future generation and transferring the ecological and oral culture and increasing the face to face communications (M. South worth, E. Ben-Joseph, 2003).

#### **2.4.3 Urban Pedestrian Streets as Value Additions**

Their value can also be considered with regards to the specific functions they provide. For example, the Bureau of Municipal Research in Toronto lists these functions as the nature function, urban design function, economic function, social retreat function, and outdoor recreation function. Another study categorizes the values from a sociological viewpoint, listing: civic and social capital, cultural expression, economic development, education, green infrastructure, public health, recreation, and urban form. These studies also reiterate the same core benefits of urban open spaces and none of the options create any inconsistencies with the others.

Additional beneficial aspects of urban open space can be factored into how valuable it is compared to other urban development. One study categorizes these measures of value into six



groups: utility, function, contemplative, aesthetic, recreational, and ecological. These categories account for the value an urban open space holds to the development of the city in addition to just those things citizens consciously appreciate. For example, the “function value” of an open space accounts for the advantages an urban open space may provide in controlling runoff. The final three values listed, aesthetic, recreational, and ecological, are essentially the same as the values that make urban open spaces consciously valuable to citizens. Of course, there are several different ways to organize and refer to the merit of open space in urban planning (Taylor and Francis, 2005).

## 2.5 Policy and Planning Biases

Many current transportation policies and planning practices are biased in various ways that favor mobility over accessibility and automobile transport over other modes. For example:

- A major portion of total transport funding is dedicated to roads and parking facilities, and cannot be used for other modes even where demand exists and they are cost effective investments.
- Current transport system performance evaluation tends to use indicators, such as average travel speeds and roadway level-of-service ratings which primarily reflect motor vehicle travel conditions, with little consideration given to non-motorized modes.
- Transport and land use planning are separate, which can lead to inefficient planning. For example, disadvantaged people do not often benefit pedestrian facilities and improved services in accessible locations, and this is not usually considered a transport issue (Litman 2011).

## 2.6 Sustainable Development Perspective

Conventional planning tends to be *reductionist*: individual problems are assigned to specific professions and agencies with narrowly defined responsibilities (Litman and Burwell 2006). Sustainable development requires more integrated planning that considers a wider range of impacts and options, identifies and implements *win-win* solutions, that is, policies and programs that help achieve economic, social and environmental objectives (Litman 2008). For example, sustainable planning encourages transportation agencies to implement congestion reduction

strategies that also reduce pollution emissions and improve mobility for non-drivers, and environmental agencies to implement emission reduction strategies that also reduce congestion and improve mobility options, and social welfare agencies support strategies which improve mobility for non-drivers and also help reduce congestion and pollution. Some public policies, such as the U.S. federal livability agenda, support such integrated solutions. Sustainable transport planning offers practical benefits. Integrated solutions tend to be more efficient, and because they can build a broad coalition, they can gain more political support. For example, it would be difficult to build political support needed to significantly increase public transit funding based only on social equity objectives, but it becomes more feasible with a broad coalition of supporters, each interested in particular objectives, and willing to work together.

## 2.7 Public Health

Significant research supports the notion that pedestrian streets, parks, and other urban open spaces offer health benefits to city residents through exposure to a natural environment. *Last Child in the Woods* speaks of the positive effects nature in general has on children, even when experienced in small islands of green within a city. These spaces offer citizens relief from the strains of urban environments and everyday demands. That respite can come in the form of a walk or run, time spent sitting or reading, watching the birds, essentially any time spent in the natural environment the open space offers. Research shows that when these open spaces are attractive and accessible, people are more likely to engage in physical activity, which has obvious inherent health benefits (Brenda N. Dix and John D. Hunt (2010). Public pedestrian streets and other recreation parks are multi-use, but recent advances in best practices has prompted many cities to move away from old-fashioned and biologically impoverished "urban savannah" designs, to mosaic environments, which allow full recreational use but maintain higher levels of biodiversity and hence deliver greater benefits to human well-being. A recent study in Sheffield, UK, found that the psychological benefits gained by visitors to urban green spaces increased with their biodiversity, indicating that 'green' alone is not sufficient; the quality of that green is important in delivering the health benefits.

## 2.8 Bridging Social Gap through Social Facilities

Social inequalities remain a significant determinant of unattained social welfare. The equity dimension obliges the government to effect policies that systematically address initial inequalities in a way that reduces imbalances, especially those in human welfare. This dimension recognizes that the country cannot achieve true national cohesion and integration if socio-economic disparities persist. This requires attention to vertical and horizontal equity, in effect, affirmative action or positive discrimination. Vertical equity requires, for example, that people with unequal welfare assets are treated appropriately unequally wherever they reside. In turn, horizontal equity requires the equal treatment of equals wherever they are. These approaches mean that affirmative action is practiced in favor of the disadvantaged members of society across regions in the country. Consequently, communities whose development has been neglected for historic or other reasons should not be treated in the same way as communities that have previously been advantaged. Indeed, it is usually the case that wide disparities are evidence of policies of exclusion, weak institutions and/or weak governance structures. To remedy the situation, both economic institutions and social institutions have a key role to play (**National Cohesion and Integration Act, 2008**). Some of the key social facilities that can be established at the public access places include:

**2.8.1 Community Centers** - Community centers or jumping recreation centers are public locations where members of different communities tend to gather for group activities, social support, public information, and other purposes. They are open for the whole community or for a specialized group within the greater community. Street Parks are considered as community centers. A pioneer of community centers was **Mary Parker Follett**, who saw community centers as playing a major part in her concept of community development and democracy seen through individuals organizing themselves into neighborhood groups, and attending to people's needs, desires and aspirations.

In the United Kingdom, the oldest community centre is possibly that which was established in 1901 in **Thringstone, Leicestershire** by the old age pensions pioneer, **Charles Booth (1847-1916)**. Extended in 1911 and taken over by the Leicestershire

County Council in 1950, this centre still thrives as an *educational, social and recreational community resource* and was the inspiration for numerous others of its kind. There are also community centers for a specific purpose, but serving the whole community, such as an *arts centre*.

Some community centres are squatted, mostly in Europe, which have been made into organizing centres for community activities, support networks, and institutional initiatives such as free kitchens, free shops, public computer labs, graffiti murals, free housing for activists and travelers, recreation, public meetings, legal collectives, and spaces for dances, performances and art exhibitions. Those in a more established setting may be directly connected with a library, swimming pool, gymnasium, or other public facility. Community centers have various relationships toward the state and governmental institutions. Within the history of a given institution they may move from a quasi-legal or even illegal existence, to a more regularized situation.

Social centers in Italy continue to be of political and social dissent. Notably the **Tute Bianche** and **Ya Basta** Association developed directly out of the *social centre movement*, and many social forums take place in social centers.

In the United Kingdom there is an active *Social Centre Network*, which aims to link up "up the growing number of autonomous spaces to share resources, ideas and information". This network draws a very clear distinction between the many autonomous social centers around the country and the state or large NGO sponsored community centers.

**2.8.2 Cultural Centre** – this is a meeting place that is community owned, controlled and provides the facilities for the Preservation, Promotion and Presentation of culture and heritage. Cultural Centre provides a space for teaching culture to the younger generations and the general public; for the Indigenous Artists to develop their skills and promote their works; as well as providing employment and training opportunities and as a venue, the

Site for hosting festivals and events, conducting ceremonies and hosting community celebrations. In a nutshell, a cultural centre acts as:

- A *venue* for the display of traditional and contemporary Indigenous visual and performing arts
- A place for *teaching* culture to the next generation of children and youth and the wider community
- A centre of *learning* and referral support
- A place for the *local community* and *visitors* to learn about different cultures, society and history
- A focus for the *interaction* between communities, other major arts and cultural organizations

**2.8.3 Business Centres** – this are places where buying of commodities and selling takes place. They are commercial areas which create opportunities for interactions between the buyers and sellers, between the buyers and between the sellers themselves. People interact freely in negotiations and ultimately come into consensus. This creates a tight sociable bond and a sense of cohesion.

## **2.9 Case study 1: Aboriginal Cultural Centre in Musgrave Park**

Musgrave Park is a city's social place that has attained attractions of communities for social activities. In 1997 the Musgrave Park Cultural Centre Inc was established by both Indigenous and non-Indigenous members, as the authorized entity to lead and manage the Centre; to make community's vision a reality Presently, the Cultural Centre has an open exhibition and gallery space, conference and training facilities, outdoor performance areas and an amphitheatre, separate meeting spaces for men, women and children and a "yarning" circle.

**2.9.1 Amphitheatre** - this is an open-air venue used for entertainment and performances. Amphitheatres are typically man-made, though there are also geological formations used in the same manner which are known as natural amphitheatres. The term derives from the ancient Greek (*amphitheatron*) meaning "on both sides" or "around" and (*theātron*) meaning "place for viewing".

There are two similar, but distinct, types of structure for which the word "amphitheatre" is used: *Ancient Roman amphitheatres* were large central performance spaces surrounded by ascending seating, and were commonly used for spectator sports; these compare more closely to modern open-air stadiums. They were given this name because their shape resembled that of two theatres joined together. Modern amphitheatres (incorrectly so named, but the word has come to be used in this sense) are more typically used for theatrical or concert performances and typically feature a more traditionally theatrical-style stage with the audience only on one side, usually at an arc of less than a semicircle; these compare more closely to the theatres of ancient Greece, and have been more commonly built throughout history as performance spaces.

**Plate 2.0: An amphitheater**



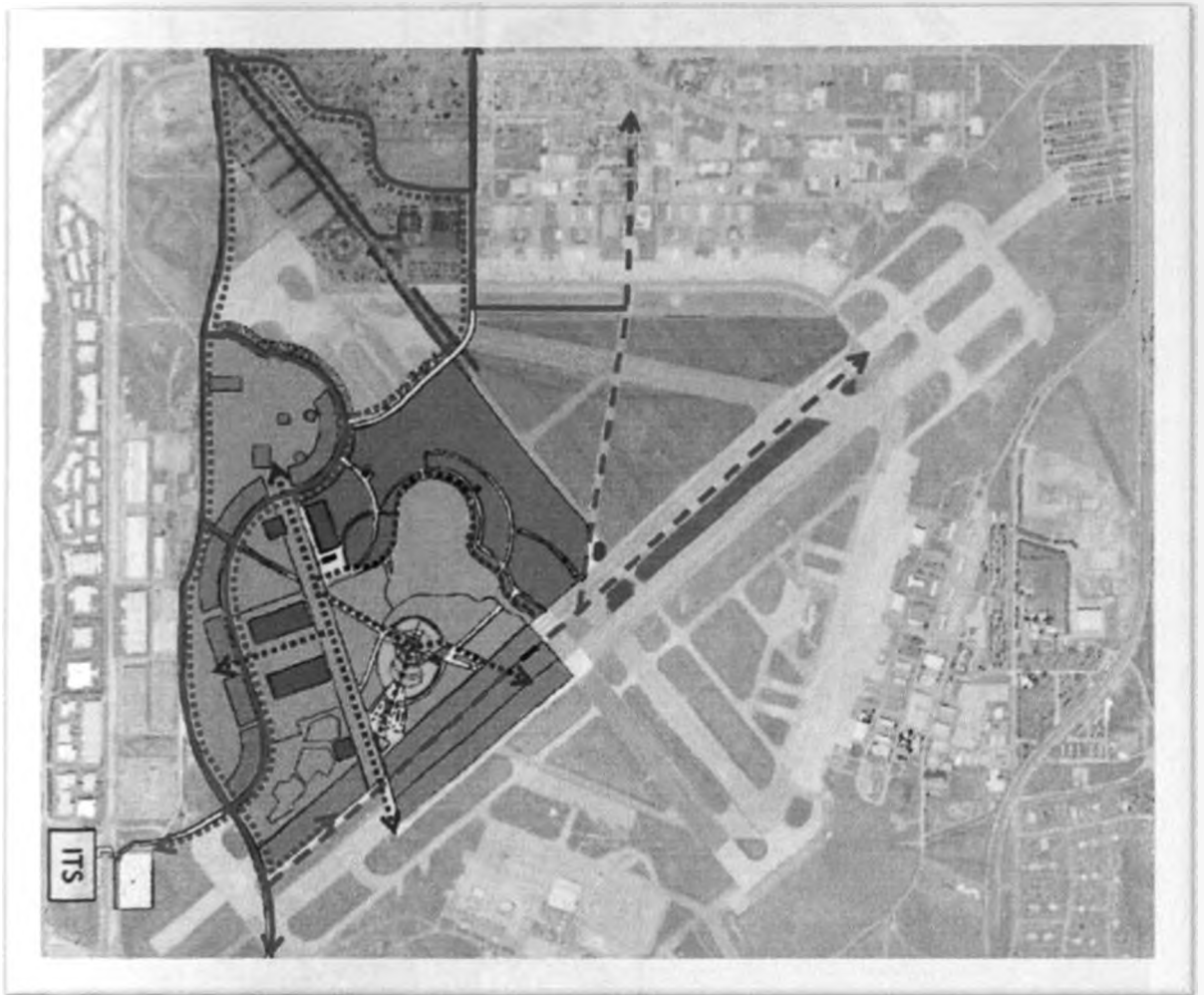
**Source: Internet, Google; Aboriginal Cultural Centre**

Their primary objectives are to facilitate groupings gathering for a social event which could be entertainment in form of visual and performing arts, conference and meetings, exhibition space for varied cultural arts and crafts and cultural education programs amongst others.

### **2.10 Case Study 2: Great Park City in USA**

The concept of was born and evaluated in the Resnicow Schroeder Regional Cultural Landscape Study in 2007, with the Live Nation as the funding partner for its establishment.

**Fig 2.0: Great Park City Showing the Streets**



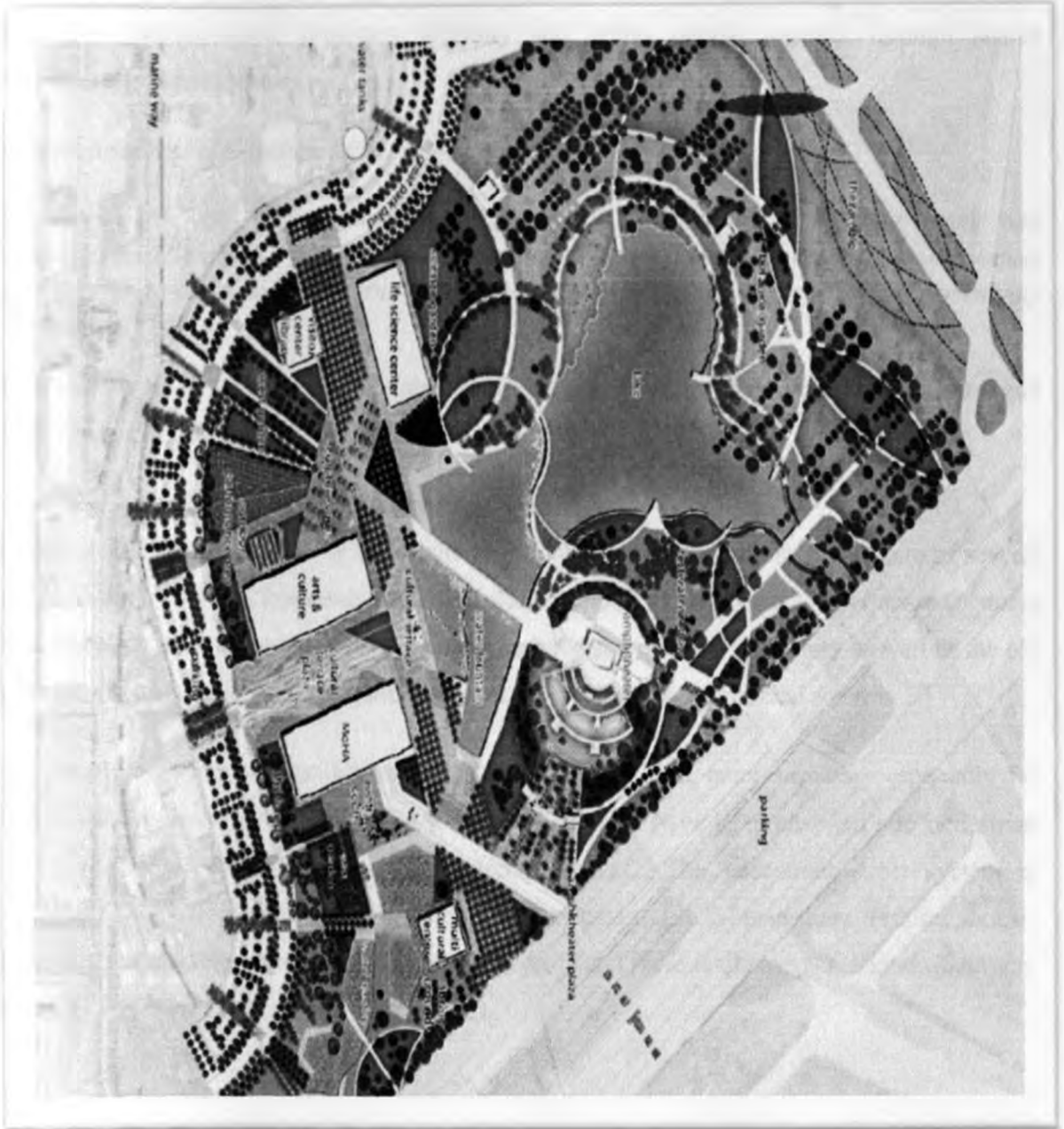
**Source: Internet: [www. Google: Great Park City](http://www.google.com)**

An amphitheatre is located off the major pedestrian thoroughfare flowing into a green landscape and surrounded by waterscape creating an atmosphere of tranquility. Water has accentuated the designer's focal strength due to its versatility.

The entire design and location amidst otherwise concrete jungle portray a flow characteristic, contrast in form and convey a sense of centrality and arrival.



**Fig 2.1: Great Park City Showing Various Social Facilities**



**Source: Internet.www. Google: Great Park City**

The more articulate amphitheatre acted as a venue for performing arts companies and high profile performers throughout the country and overseas. The performances included a diverse mix of music, dance and theatre – from pop to classical to world arts.

The amphitheatre supports the role as a hub for human well being, encourages social interaction and public engagements; promotes diversity and brings people together through shared experiences in public spaces.

Its mission statement is outlined as:

*"The Orange County Amphitheatre at the City Great Park will be an aspiring, iconic and financially sustainable, 21<sup>st</sup> Century performing arts facility, ranking amongst the finest venues anywhere for popular entertainment, symphonic performances, dance, opera, and community programming"*

The synergies of this facility can be integrated into innovative, world class artistic, cultural and educational experience for all users.

### **2.11 Case Study 3: Stroget Street in Copenhagen**

The pedestrian street "Strøget" is the world largest and oldest - and is just like a maze of several walking streets that runs from east - the Town Hall Square - to west - the Kings Square (Nytorg) and to Nyhavn. The walking street - passes through the central parts of the city as well as the old medieval city and Latin Quarters - and is connected to many large historical squares.

The pedestrian street was established in 1962 and has been a great success - especially for tourists and shoppers. Since then - many streets in the area have been changed into pedestrian streets and linked to the main walking street "Strøget". The pedestrian street system in Copenhagen is slowly expanding and since its development 1962 - many new fashion shops - restaurants - sidewalks cafés - department stores etc. - and there is always some kind of activity day or night in this part of central Copenhagen.

**Plate 2.1: The Busy - Frederiksberggade in 1929 - and long before it was turned into the longest pedestrian in the world - established as "Strøget" in 1962.**



Source: [www.google.com](http://www.google.com); [Stroget Street](http://www.stroget.com)



**Plate 2.2: Every noon - the Royal Guard will march through "Strøget" to the royal residence**

## 2.12 Downtown Shopping – Vesterbrogade

From the other end of the Town Hall Square - east to west - the grand Vesterbrogade - stretches way down to the Zoo Garden at Valby - with hundreds of big and small shops in all categories - blended in as a perfect mixture that matches the vibrant city atmosphere. It will take more than a half day to walk up and down Vesterbrogade and the joined shopping streets to Valby - and back again to the Town Hall Square. This part of the city is called - Vesterbro - which is the genuine Downtown Area of Copenhagen. When entering Vesterbrogade one will pass Tivoli Gardens - (Hovebanegården) the Central Station - (Frihedsstøtten) Liberty Memorial Monument - (Københavns Museum) Copenhagen's Museum and much more.

From Kongens Nytorv (The Kings square) - end of Pedestrian Street - and to the other end of Copenhagen - the Zoo Gardens - there is almost 5 km of shops - shops and shops. The route can start at Kongens Nytorv - then walk up through the Pedestrian Street - pass the Town Hall Square - (take a pause here and enjoy a red Danish hotdog) - then enter Vesterbrogade right to the Zoo Gardens. The walk tour will nearly take a half day each way. With a free city bike the trip will be reduced to half time. For shopaholics and bargain hunters - this is the ultimate shopping and workout tour as well as a great way to experience Copenhagen.

**Plate 2.3: A Wing of The Pedestrian Street on a Hot Summer Day with Lively Activity in Relaxed Surroundings**



Source: [www.google](http://www.google); Vesterblogade

**B: Many Cozy Sidewalk Cafés and Restaurants are placed alongside the Pedestrian Street**



Source: [www.google](http://www.google); Vesterblogade

### 2.13 Local Case Study; the Aga Khan Walk

### 2.13.1 Historical Development of Aga Khan Walk

Aga Khan Walk is the only pedestrian street within the City of Nairobi. The city lies on the upper part of the Nairobi River, in the south of the nation, and has an elevation of 1795 m above sea-level. Nairobi which is the capital and largest city of Kenya comes from the Maasai phrase *Enkare Nyirobi*, which translates to "the place of cool waters". However, it is popularly known as the "Green City in the Sun" and is surrounded by several expanding villa suburbs. It is the most populous city in East Africa, with a current estimated population of about 3 million. According to the 2009 Census, in the administrative area of Nairobi, 3,138,295 inhabitants lived within 696 km<sup>2</sup> (269 sq mi). Nairobi is currently the 12th largest city in Africa, including the population of its suburbs.

**Plate 2.4: Aga Khan Walk in 1995**



**Source:** [www.google.com](http://www.google.com). Aga Khan Walk

Founded in 1899 as a simple rail depot on the railway linking Mombasa to Uganda, the town quickly grew to become the capital of British East Africa in 1907 and eventually the capital of a free Kenyan republic in 1963. During Kenya's colonial period, the city became a centre for the colony's coffee, tea and sisal industry.

### 2.13.2 Economic activities

Agricultural activities at its suburbs and trading activities led to the development of industries in what is today referred to as industrial area. The main owners were the colonial governors and masters who had learnt the art of processing and Africans became the workers for the manual and menial jobs in the industries. The main transport modes were railway and roads to the airports and water ports for overseas transportation of the manufactured agricultural products.

With time the population of the Africans to Nairobi started growing as more laborers were needed. Racism was a common phenomenon and this was evident even in the transport and communication areas. Certain areas were destined for colonial whites while others were left for Africans who were referred to as Negros. The focus was the railway station where all roads stemmed from. A road from the station towards the current Pangani area was for Africans through Curio Corps area which Africans hardly pronounced but baptized it as what is today called Kariokor. Amongst other roads for colonial people is a thoroughfare that was strictly non-vehicular but horse driven carts were used to ferry colonial masters from the railway station to their residence in the place where the current Norfolk Hotel stands. This is the road which became the Aga Khan Walk.

Nairobi continued to grow under the British rule, and many Britons settled within the city's suburbs. In 1919, Nairobi was declared to be a municipality. In February 1926, E.A.T. Dutton passed through Nairobi on his way to Mount Kenya, and said of the city:

“Maybe one day Nairobi will be laid out with tarred roads, with avenues of flowering trees, flanked by noble buildings; with open spaces and stately squares; a cathedral worthy of faith and country; museums and galleries of art; theaters and public offices. And it is fair to say that the Government and the Municipality have already bravely tackled the problem and that a town-plan ambitious enough to turn Nairobi into a thing of beauty has been slowly worked out, and much has already been done. But until that plan has borne fruit, Nairobi must remain what she was then, a slatternly creature, unfit to queen it over so lovely a country”. (*Dutton*),

Developments within the city continued with time and the status of the street as non vehicular has hitherto been maintained with lots of businesses coming up alongside. However it was interrupted halfway at the Kenya Bus station, at the place where the current Kencom Building stands and at the Junction of City Hall Way. The street currently starts from the Junction of Haille Sellasie to the junction of City Hall Way. The other part was replaced by vehicular street named Kimathi Street and interrupted at the end by the building, Bazaar.

### **2.13.3. Efforts by Stakeholders**

Business owners, private firms, individuals, and some stakeholders preferably the Nairobi Central Business District Association (NCBDA) with conjunction with the City Council of Nairobi have made efforts to reconstruct and create a new fabric for the pedestrian street while maintaining its original character. One of the prominent facilities recently established in the street is the public toilet which has clean water and a small scale shop. Some soft landscaping have been done and paving on walk ways, with a few other landscape elements on the street. Nevertheless, facilities to allow social events have not been really focused on and therefore people have made the few existing concrete planters and boundary walls as their seats, to socialize, wait for others or just resting.

### **2.13.4. Current Use**

Some of the major buildings along the street are cooperative bank building, Ex-Telcom, Electricity House, Kenya Re-Plaza, Kenya Cinema, Uchumi House, Kencom building among others.

The walk way is used as an open space for aeration of the buildings alongside, for pedestrians to pass through, religious activities, hawking, socialization, meeting place etc. The Globalization and **World Cities Study Group and Network (GaWC)** defines Nairobi as a prominent social centre and therefore the need for support to facilitate social places.



## 2.14 Literature Review Study Lessons

The study yields the following amongst others:

### 2.14.1 Socio-Cultural Benefits

- Cross cultural differences do impede upon interpersonal relationships. To enhance cohesion people from different cultures must interact freely and are expected to co-exist in all areas of lives and make mutual decisions.
- Cross cultural interaction and intermingling is vital for communities' cohesion. It involves even training to develop awareness between people where a common cultural framework does not exist in order to promote clear lines of communication and better relationships. It has many benefits to be gained by all communities and participants.

Some main benefits include:

- **People Learn About Themselves:** Through cross cultural training, people are exposed to facts and information about their own cultures, preconceptions, mentalities and worldviews that they may otherwise not have contemplated. Cross cultural training helps people learn more about themselves through learning about others.
- **Encourage Confidence:** Cross cultural training promotes self-confidence in individuals and teams through empowering them with a sense of control over previously difficult challenges in the walks of life.
- **Break down Barriers:** All of us have certain barriers such as preconceptions, prejudices and stereotypes that obstruct our understanding of other people. Cross cultural training demystifies other cultures through presenting them under an objective light. Through learning about other cultures, barriers are slowly chipped away thus allowing for more open relationships and dialogue.
- **Build Trust:** When people's barriers are lowered, mutual understanding ensues, which results in greater trust. Once trust is established altruistic tendencies naturally manifest allowing for greater co-operation and a more productive co-existence.

- **Motivate:** One of the outcomes of cross cultural training is that people begin to see their roles within their places of living, work places etc. more clearly. Through self-analysis people begin to recognize areas in which they need to improve and become motivated to develop and progress together.
- **Open Horizons:** Cross cultural training addresses challenges of co-existence at a very different angle to traditional methods. Its innovative, alternative and motivating way of analyzing and resolving problems helps people to adopt a similarly creative strategy when approaching challenges in their work or personal lives.
- **Develop Interpersonal Skills:** Through cross cultural training participants develop great 'people skills' that can be applied in all walks of life. By learning about the influence of culture, i.e. the hidden factors upon people's behaviors, those who undertake cross cultural training begin to deal with people with a sensitivity and understanding that may have previously been lacking.
- **Develop Listening Skills:** Listening is an integral element of effective and productive communication. Cross cultural training helps people to understand how to listen, what to listen for and how to interpret what they hear within a much broader framework of understanding. By becoming good listeners, people naturally become good communicators.
- **People Use Common Ground:** In the workplace people have a tendency to focus on differences. When cross cultural communication problems arise the natural inclination is to withdraw to opposing sides and to highlight the negative aspects of the other. Cross cultural training assists in developing a sense of mutual understanding between people by highlighting common ground. Once spaces of mutual understanding are established, people begin to use them to overcome culturally challenging situations.
- **Career Development:** Cross cultural training enhances people's skills and therefore future employment opportunities. Having cross cultural awareness gives people a competitive edge over others especially when applying for positions in international companies with a large multi-cultural staff base.

- Emphasis to incorporate social equity analysis in all planning stages, including funding allocation, strategic planning, public participation, economic evaluation, project design, operations, evaluation and enforcement.
- Recognize the value of entire system diversity. Support improvements to affordable facilities, including walking, cycling, off parking for public transport, emergency delivery services and *universal design* (transport systems that accommodate all users, including people with disabilities). Social equity requires correcting policy and planning biases that undervalue affordable modes (walking, cycling and public transit) and encourage sprawled development.
- Favors win-win solutions - As much as possible, efforts to achieve environmental justice objectives should favor strategies that also help achieve other planning objectives such as congestion reduction, consumer savings, accident reductions and smart growth land use development. This can provide greater total benefits, and opportunities to build broad coalitions with other interest groups. This approach reflects sustainability principles.
- Support high-quality public transport services, like transit and delivery points. This benefits users, attracts people out of cars, and helps create political and financial support for diverse transit service improvements that help both poor and wealthy. Providing only basic transit services implies that transit is inherently inferior, and so should be abandoned by travelers as soon as they can afford to purchase an automobile.
- Enhancing safety, enclosure and urban inclusiveness, improvement of the physical characters of a pedestrian street to maintain its historical and cultural development.
- Creation of rich environments that increases the value of adjacent surroundings
- Enhance boosting of economy, education and research

### 2.14.2 Design Components

The components that the pedestrian space provides to citizens can be broken into three basic forms; recreation, ecology, and aesthetic value.

a. **Recreation** - The Street is often appreciated for the recreational opportunities it provides, which allow public interactions. Recreation in the space may include active recreation (such as organized exercises) or passive recreation, which may simply entail being in the open space. Time spent in a space for recreation offers a reprieve from the urban environment offered (P. Zykofsky, 1999).

b. **Ecology**- The conservation of nature in an urban environment has direct impact on people for another reason as well. A Toronto civic affairs bulletin entitled *Urban Open Space: Luxury or Necessity* makes the claim that “popular awareness of the balance of nature, of natural processes and of man’s place in and affect on nature – i.e., “ecological awareness” – is important. As human live more and more in man-made surroundings – i.e., cities – he risks harming himself by building and acting in ignorance of natural processes.” Beyond this man-nature benefit, urban open spaces including pedestrian streets also serve as islands of nature, promoting biodiversity and providing a home for natural species in environments that are otherwise uninhabitable due to city development.

c. **Aesthetics**- According to a journal of urban design 2005, entitled, “Engineering, Urbanism and the Struggle for Street Design”, M. Hebbert, 2005 writes that the aesthetic value of pedestrian spaces is self-evident. People enjoy viewing nature, especially when it is otherwise extensively deprived, as is the case in urban environments. Therefore, pedestrian streets offer the value of “substituting gray infrastructure.”

**2.14.3: Components and Tools for Integration** – these are areas that give people opportunity to interact; chances to integrate, to intermingle for cohesion purposes. They create an inclusive society where people’s differences are not important. The World Summit for Social Development (WSSD) in Copenhagen in 1995 defined an inclusive society as “a

*society for all', in which every individual, each with rights and responsibilities, has an active role to play (United Nations, 1995, para 66).*

Such an inclusive society is equipped with mechanisms which accommodate diversity, and facilitate/enable people's active participation in their political, economic and social lives. As such, it over-rides differences of race, gender, class, generation, and geography, and ensures equal opportunities for all to achieve full potential in life, regardless of origin. Such a society fosters, at the same time, emanates from well-being of each individual, mutual trust, sense of belonging and inter-connectedness. When confronted with new challenges, such as external economic shocks, unexpected changes, national disaster or crisis, an inclusive society is one that shows more resilience than others. Though creating such a stable, safe and just society is a slow and tedious process, it is the best way to lay a ground to prevent social conflict and build sustainable peace.

These may include among others social arenas (parks, squares, theatres etc), religious places where people worship and share together as they seek spiritual interventions, and commercial points where people integrate as they inquire, buy and sell. These when provided in the areas where people congregate especially along pedestrian areas like streets, the streets become the tools for enhancing the integration.

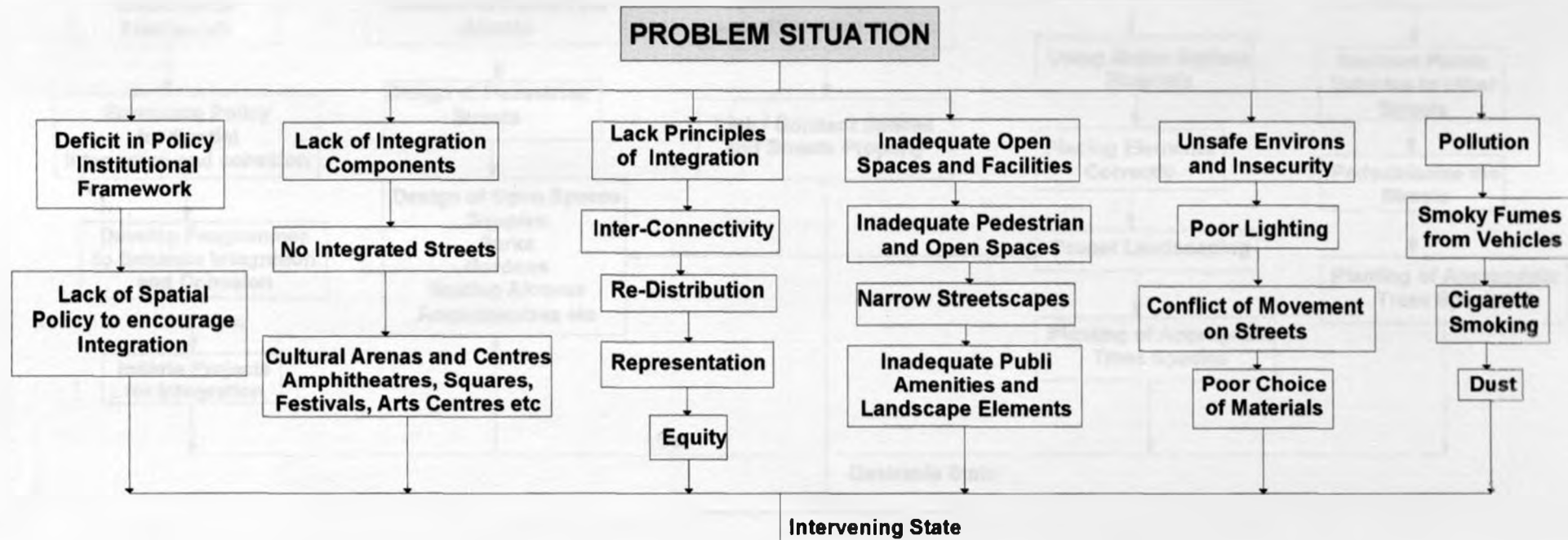
### 2.15 Conceptual Framework

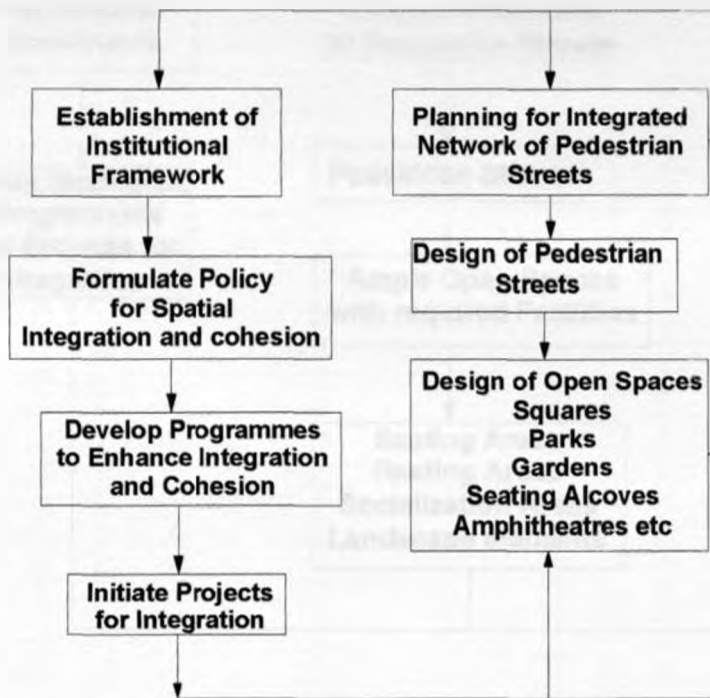
This has been guided by the study from the literature review and shows the integration and cohesion gap and how this gap has been filled up to come up with the desirable situation.

**Table 2.3: Conceptual Framework**

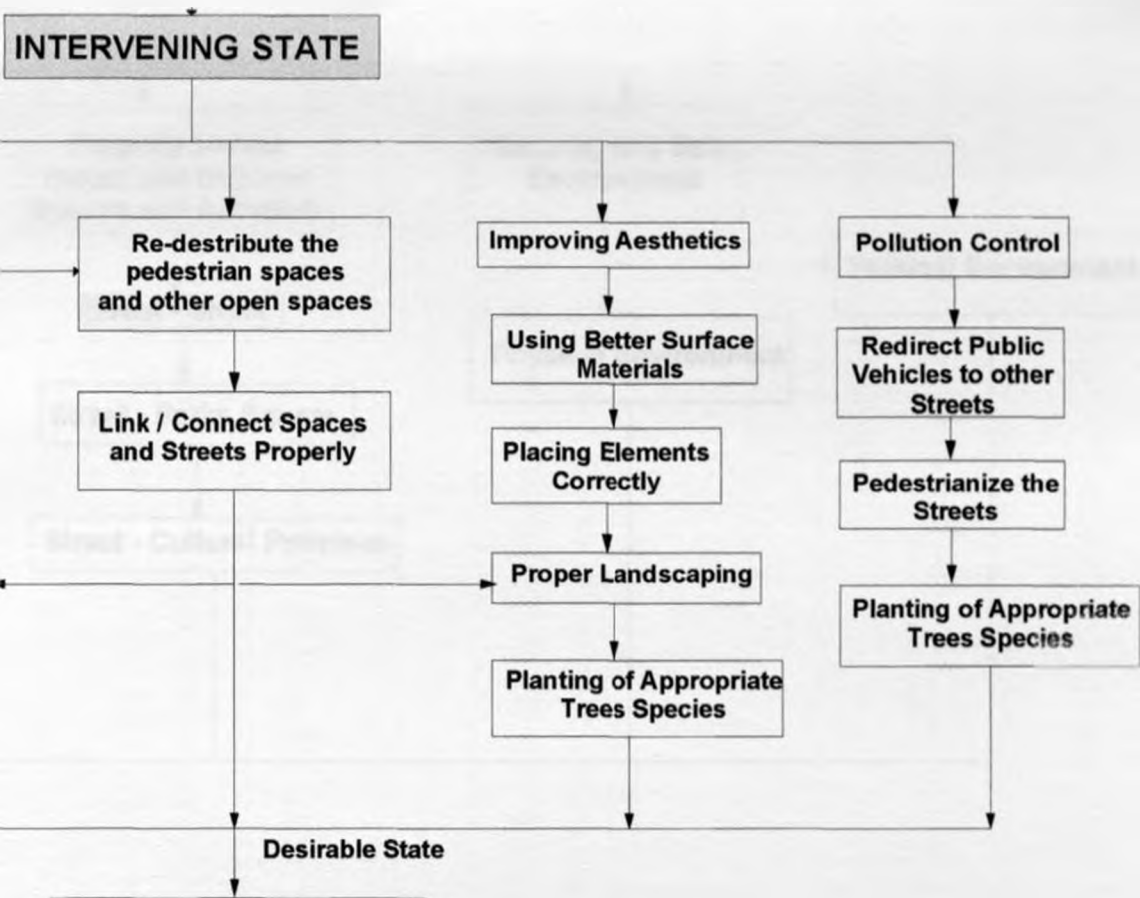
(See the table below)

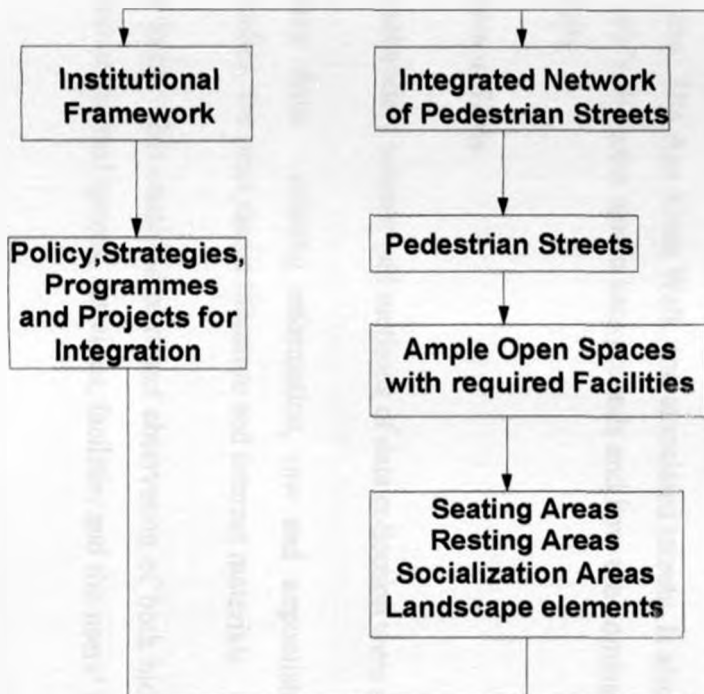
**TABLE :CONCEPTUAL FRAMEWORK**



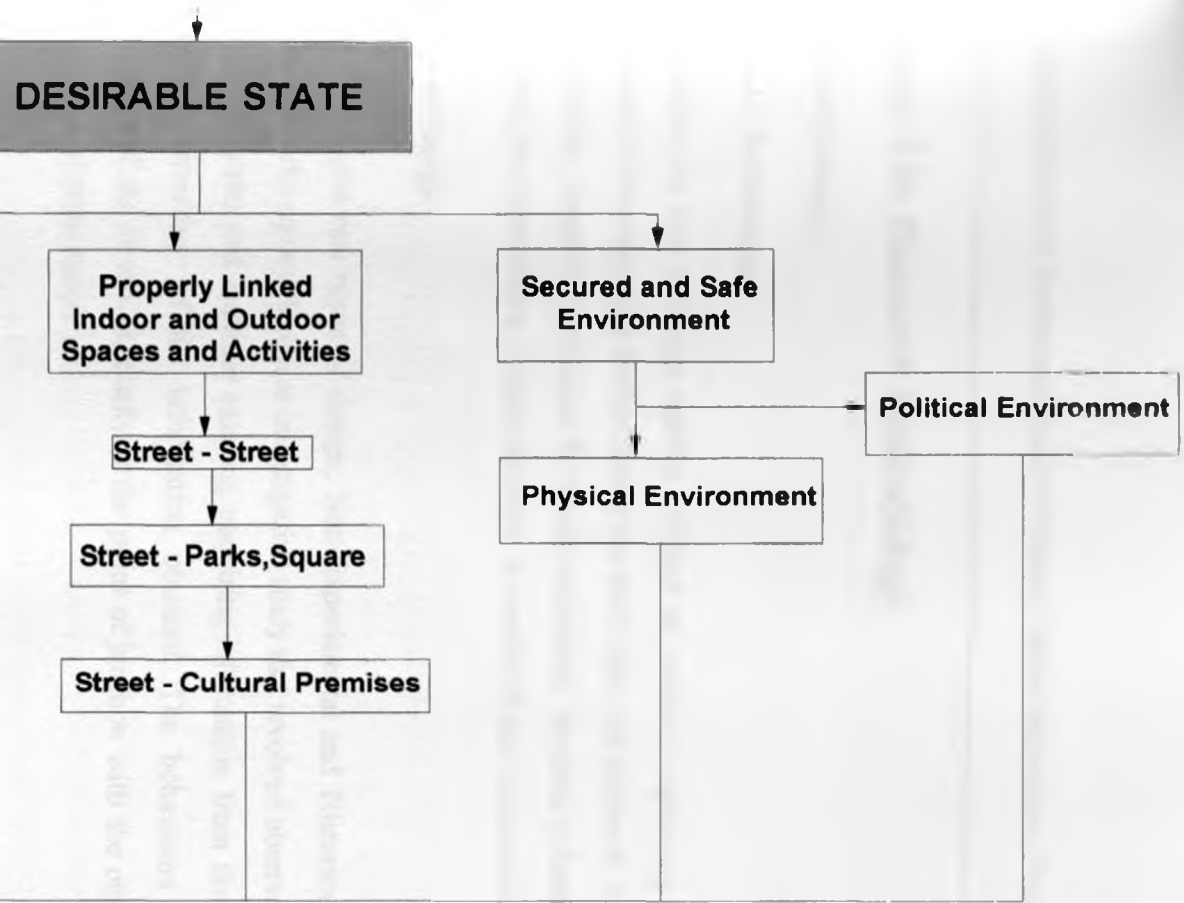








**Source: Author, 2012**



**DESIRABLE STATE**

**Properly Linked  
Indoor and Outdoor  
Spaces and Activities**

**Street - Street**

**Street - Parks, Square**

**Street - Cultural Premises**

**Secured and Safe  
Environment**

**Physical Environment**

**Political Environment**

## **Chapter 3.0: Research Methodology**

### **3.1. Research design**

#### **3.1.1 Introduction**

This describes the type of design used to conduct the research explaining the units of analysis and the units of observation. It further shows the study area and approach, the data needs and the sources of data. Sampling procedure is clearly explained, the data collection techniques, data analysis and data presentation. Finally the study is concluded and recommendations given.

### **3.2 Type of Design**

The study engaged two types of design; Non-Experimental and Historical design. The Non-Experimental is the survey design or investigative study that involved observation of the status of the streets; activities and facilities existing, enquiring information from the users of the streets and ultimate inventory of the information obtained. The behaviours of the users and characteristics of the streets especially at the point of junction with the other vehicular streets were also units of observation.

Historical design is the study of the history of the development of the Central Business District preferably the study area; The Aga Khan Walk and associated streets. It also involved the study of the history of the city's different ethnic backgrounds and how the communities have evolved and co-existed in the city.

### **3.3 Nature and Sources of Data**

Both the primary and secondary sources and methods of data collection were adopted.

**3.3.1 Secondary data** – existing information, raw and unpublished data; literature review, case studies, the print media literature and internet materials.

**3.3.2 Primary data** – this consisted of direct observation of both bio-physical elements of the streets and associated spaces, activities, facilities and the users' behaviors and their

rate of interactions. Interviews were also conducted in form of oral inquiry to individuals and groups of users and the key informants. Structured questionnaires were also conducted to the same users of the spaces.

### **3.4 Planning for Data Collection**

This began by obtaining the permission letter from the Department of Urban and Regional Planning, University of Nairobi as consent to conduct the data collection. The tasks involved in the process included the preliminary site visit (reconnaissance) to familiarize with the site conditions, actual site visit whereby observations were carried out and interviews to the users and the key informants, guided by the questionnaires already prepared.

### **3.5 Study area**

The research was done along the Aga Khan pedestrian walk way, City Hall Way, Kimathi Street, The Mama Ngina Street and Kaunda Street. Despite the city being the largest urban centre in Kenya and the country's capital city, it has only one purely pedestrian street, the Aga Khan Walk. According to statistics by the Nairobi Central Business District Association (NCBDA), the walk way is estimated to carry an average of five thousand persons per day, either passing through it or just seated along. Majority of users in the Aga Khan Walk were youths who were working in the city, others in various educational institutions or searching for job opportunities.

### **3.6 Study Limitations**

The study experienced a few limitations that would have contributed to some information biasness:

#### **3.6.1 Scarcity of Resources** – lack of ample information, data collection tools and research

Assistants.

#### **3.6.2 Poor Response** – lack of willingness on the part of respondents to respond. This gave

rise to inadequate information and hence took more time in search of adequate information.

### 3.7 Data Needs and Sources

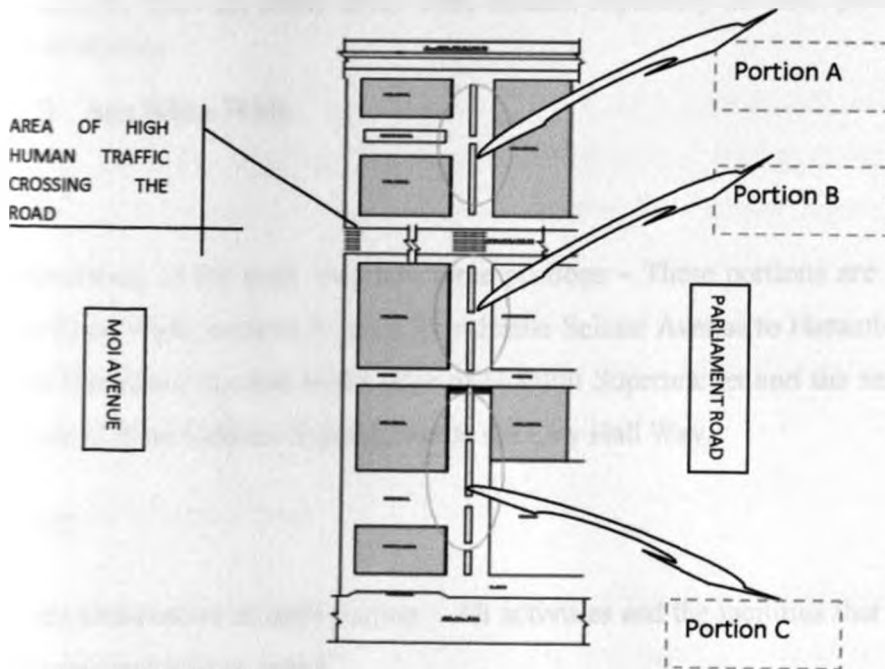
**Table 3.1: Data Needs and Sources**

<b>Objectives</b>	<b>Information</b>	<b>Source of Data</b>
To evaluate the status of the pedestrian streets in terms of size and facilities in the Nairobi Central Business District (CBD)	Physical Characteristics Social characteristics Functional relationships	Direct observation  Secondary data
To investigate the potential of street-level social integration and cohesion in Nairobi Central Business District	Physical Characteristics Social characteristics Functional relationships	Direct Observation, Interviews Maps Photos
To identify the challenges, constraints and opportunities of establishing an integrated network of a pedestrian street that enhances social integration and cohesion	Physical Characteristics Functional relationships	Interviews  Maps  Social surveys
To propose street-level spatial strategies, programs and projects that would enhance maximum integration and cohesion	Economic strategies Spatial changes and Policies Physical changes Functional relationships	Observation,  Interviews  Policy documents  Social surveys

### 3.8 Research Population and Sampling Procedure

**3.8.1 Sampling** - This is an explicit plan to obtain a sample size from a given population. Therefore the following techniques shall be used in sampling process to obtain the sample size:

**Fig. 3.0 - A sketchy figure of Aga khan walk**



This sampling method is based on the objectives: To evaluate the status of the Aga Khan Walk in terms of its size and its facilities in the Nairobi Central Business District (CBD) and To investigate the potential of street-level social integration and cohesion in Nairobi Central Business District. This will involve surveying of all activities and facilities in the geographical study areas.

### **3.8.2 Sampling Method and Size**

The methodology utilized a multi – stage sampling method giving rise to 110 interviewees. The size of the population variance needs consideration in a big sample (Kothari, 1990). A fairly large sample ensures that everyone is represented in the sample and for descriptive studies, any population sample that is greater than 30 is appropriate (Mugenda 1990)

To achieve this, the study areas were studied separately as each portrays unique and varied characteristics.

#### **i) Aga Khan Walk**

##### **Step 1**

Delimitation of the walk way into three portions – These portions are three main segments of Aga Khan Walk; portion A stems from Haille Selasie Avenue to Harambee Avenue. Portion B is from Harambee Avenue to the edge of Uchumi Supermarket and the sunken car park while the portion C from Uchumi Supermarket to the City Hall Way.

##### **Step 2**

In situ observation of each portion – All activities and the facilities that attract such activities in each segment will be noted.

##### **Step 3**

The collected data to be analyzed in order to determine the most utilized portion and the least one. This was helpful in determining how and whom to sample.

In the above process, the walk way is divided into three portions as clusters. So there are three clusters and each cluster is studied to find out its level of utilization.

In each cluster, the people who are seated and where they are seated have been noted. Portion A has five benches, portion B has ten and a 450mm high concrete boundary wall where people sit



on. Portion C has seven benches. At the end of the walk way and along the City Hall Way there are other seven benches. This area is highly populated as area B. The total number of benches is twenty nine.

In all the portions two people seated in the benches were randomly selected to be interviewed totaling to fifty eight.

### **ii) City Hall Way**

In the open space in front of the Hilton Hotel, there is a continuous semi circular bench that is usually full of people seated. The persons at both ends of the bench were interviewed, and then people in the middle were randomly selected to obtain eighteen respondents totaling to twenty. The walk way extends towards Uhuru Highway, and within the extension there are no seats for the users. Majority of users were either standing, leaning on the fences or seated on tree planters. All were randomly selected for interviews to obtain ten more respondents. The entire street added up to thirty (30) interviewees.

### **iii) Kimathi Street**

The street has no outdoor spaces for social activities alongside. However the street has varied business activities and junctions other major and minor streets all of which are commercial streets. The street culminates at Jevanjee Gardens, another social place. It was divided into two segments, one from Mama Ngina Street to Kenyatta Avenue and two people leaning against the walls of buildings were randomly selected for interview. The other segment was from Kenyatta Avenue to Bazaar Building. In similar way, two more people were selected. In the Jevanjee Gardens three people were randomly selected, one seated on a bench, another resting on the grass and one standing. All added up to seven (7) respondents.

#### **iv) Mama Ngina Street**

This is a one way vehicular street and partly pedestrian with a serene environment. People meet at different points of the street either in groups or as an individual. At the junction of Kimathi Street two people standing were randomly selected, in the middle two people, one under the tree canopy and the other was a hawker selling newspapers were selected. At the junction of Wabera Street, people stood in groups and four people from four groups were randomly selected for interview. The total was eight (8) interviewees.

#### **v) Kaunda Street**

The street was divided into two segments; one from the City Hall Annex to Koinange Street and the other from the Koinange Street to Uhuru Highway. In the first segment, three people were randomly selected; one selling newspapers on a veranda, one standing under a tree canopy and the other standing at the Koinange Junction. Four other people were selected in the next segment; two randomly selected at the square of the Holy Family Basilica, another one at the junction of Parliament Road and the fourth one at the junction of Uhuru Highway. All of them were seven (7) interviewees.

Interview was also conducted to the key informants. These were professionals in institutions which have been directly involved in managing the affairs of the street such as the Nairobi City Council (NCC), the NCBDA, various stakeholders along the Aga Khan Walk and various ministries involved.

### **3.9 Data Collection Techniques**

#### **3.9.1 Observation**

This was carried out at strategic areas such as the main entry points, common meeting areas along the streets, under the building canopies, activities along the streets and in other seating areas. Observations were done on behaviors of the street users, and the time taken on the streets (social activities). This is an easier method as it does not involve sophisticated tools.

#### **3.9.2 Questionnaires**

The respondents were asked closed questionnaires which were required to be answered by choosing a number of alternatives. This is important especially where opinions and views are sought rather than where the facts are available.

#### **3.9.3 Interviews**

The questions were open and less formal than questionnaires. By so doing they provided more opportunity to produce ample and qualified answers by probing and prompting.

#### **3.9.4 Photographs**

Photographs were taken in various places of the street; comparison and analysis were then carried out.

### **3.10 Data Recording Tools**

#### **3.10.1 Camera**

This involved photograph taking of all elements involved in the study. It was quick and less costly.

### **3.10.2 Sketches and Notes taking**

This involved writing notes from observations and respondents' opinions and making sketches where necessary. Sketches illustrated the conditions and character of the physical environs. It was also quick and less costly.

### **3.10.3 Maps**

Mapping of information was also necessary where appropriate as gaps were filled between the existing elements on the ground and those which were on the maps.

## **3.11 Data Presentation**

This presents the respondents' data in a manner that is understandable as it portrays data showing the most and the least preferable variables. The data was then prepared for analysis as well as bringing out the findings clearly.

### **3.11.1 Graphs**

These helped in organizing the raw data from the questionnaires and interviews in a summarized manner.

### **3.11.2 Tables**

Different variables were organized in table/s for easier assessment.

## **3.12 Data Processing and Analysis**

The process involved the following:

- **Data Sorting Out** – the raw data collected was arranged in an orderly manner for easier processing and analysis.

- **Quality Control** – this involved checking and editing the findings for clarity and consistency.
- **Categorizing Data** – this involved putting data of similar nature together for easier coding.
- **Data Coding** – the data was translated into appropriate state for easier analysis.
- **Data Tallying** – the data was computed appropriately and was orderly arranged into common sheets.
- **Data Processing** – this was keying in data into the computer, verifying it, validating and producing the output.
- **Data Analysis** – this was done using the Statistical Package for Social Sciences (SPSS) and the Microsoft Office, Excel Package.

### **3.13 Data Management**

These help in checking the necessary in terms of methods of data collection, the findings and other variables.

#### **3.13.1 Data Validity**

Findings from the case studies, self research and the respondents' information was analyzed to test the validity of the data. This involved finding out if the data and the method used were consistent with expectations and would give the desired results. It necessitated affirmation of the respondents' report with what subsisted.

#### **3.13.2 Data Reliability**

This tested whether the data collected was reliable by checking the consistency of the questions administered to different interviewees and the similarity of responses. This means that the same data should be obtained if the study is carried out in a situation that did not change.

### 3.14: Analytical Framework

**Table 3.1: Analytical framework**

STUDY OBJECTIVES	TYPE OF DATA	SOURCE OF DATA	TECHNIQUES FOR ANALYSIS	EXPECTED OUTCOME
To evaluate the status of the pedestrian streets in terms of its size and its facilities in the Nairobi Central Business District (CBD)	Physical changes	Direct observation	Visual interpretation, sketching	Opportunity to improve the existing conditions and visual changes
To investigate the potential of street-level social integration and cohesion in Nairobi Central Business District	Functional characteristics	Observation, interviews, photos	Mapping, sketching	Increase facilities New developments, visual changes
To identify the challenges, constraints and opportunities of establishing an integrated network of pedestrian streets that enhances social integration and cohesion.	Social and cultural data, physical data	Interviews, Social surveys	Mapping, sketching visual interpretation	New developments, enhance aesthetics, improved facilities, Visual changes
To propose street-level spatial strategies, programs and projects that would enhance maximum integration and cohesion	Social, economic, functional & physical data	Observation, interviews, Social surveys	Mapping, , sketching visual interpretation	Visual changes, aesthetics, improve facilities, spatial policy

## **Chapter 4.0: Data Presentation, Analysis and Findings**

### **4.1: Introduction**

It is worth noting that integrating people in the process of a problem solving is a fundamental step towards success; they say, a problem shared is a problem half solved. People's attitudes, views and opinions are parameters through which issues and ideas are born, reared and implemented.

This part of the study focuses on the people's opinions towards the ability of the pedestrian streets in creating integration and cohesion among people of all cultures and tribes. The sample population interviewed was 101 which also necessitated non-structured interviews to allow freedom of respondents to freely articulate their views.

The other part of findings involves various considerations geared towards rejuvenating the existing pedestrian street and creating an integrated network of pedestrian streets, which would enhance maximum free interactions of all citizens without any form of intimidation or discrimination.

Descriptive statistics have been presented using tables, bar charts and pie charts, as Mugenda (1999) states; they are good for descriptive variables.

### **4.2 Data Presentation and Analysis**

#### **4.2.1 Preferred Social Places**

The five major places within the CBD that many people preferred for their social activities included:

- Uhuru Park
- Gevanjee Gardens
- Aga Khan Walk

Others prefer to meet at specific points such as under building canopies along the streets, the open space near the Hilton Hotel, around the Tom Mboya Monument, Ambassadeur Building, near Kencom building, Bomb Blast Park, and at the open landscaped space at the railways bus terminus.

The above places are chosen depending on prevailing circumstances. The most used space at all times is the Aga Khan Walk. 56% use it because it is easily accessed within the CBD and is connected to various business premises offering them a chance to shop about at their convenience. Amongst others include Uchumi Supermarket, restaurants at Reinsurance Plaza and National Housing Co-operation (NHC) house. It is also nest to several bus stops including terminus between the Kenya National Archives and Ambassador House, near Kencom House and at Railways Grounds. About 15% use Uhuru Park because it is big and not easily congested but only when they have more time to move there and especially over the weekend. Under buildings canopies was 14% and 12% use Gevanjee gardens because it has seats and enclosed. However, they mentioned its insecurity and easily polluted by cigarette smokers. About 3% do not have any specific preference for their social activities.

**Plate 4.0: Showing a Part of Aga Khan Walk**



Source: Author's Site Visit, 2012



- a) **Uhuru Park** - is a recreational park adjacent to the central business district of Nairobi, Kenya. It contains an artificial lake and an assembly ground used for occasional political and religious gatherings. It is infamous as the site where protest against illegal land grabbing was violently broken up by the Moi regime.

**Map 4.0: A Part of Nairobi CBD Showing the Location of Part of Uhuru Park**



Source: Adopted from City Council of Nairobi

**Plate 4.1: Showing a Part of Uhuru Park**



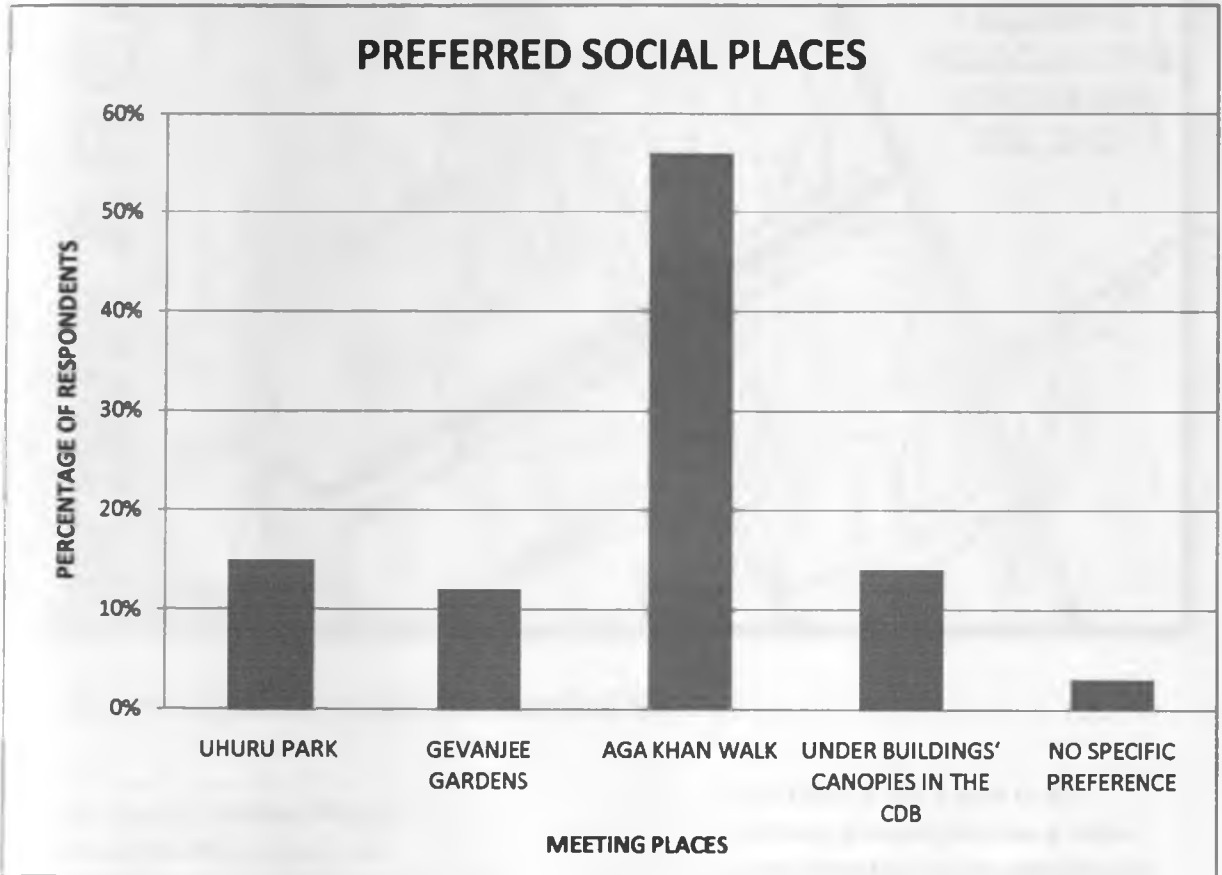
Source: Author's Site Visit, 2012

**Table 4.0: People's Responses on Preferred Social Places**

UHURU PARK	JEEVANJEE GARDENS	AGA KHAN WALK	UNDER BUILDINGS' CANOPIES IN THE CBD	NO SPECIFIC PREFERENCE
15%	12%	56%	14%	3%

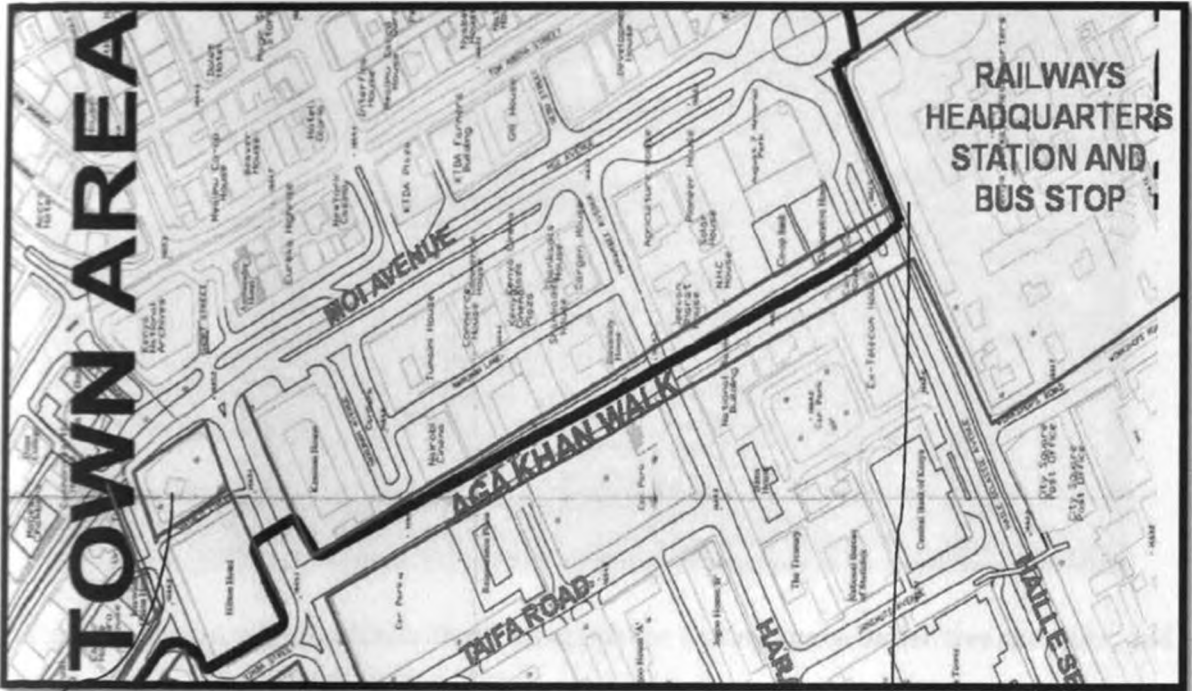
Many people preferred Aga Khan Walk, 56%, because of its location in the midst of CBD. However they cited its lack of enough facilities to accommodate more people for long.

Fig 4.0: Preferred Places for Social Activities



**4.2.2. Design Interventions.** In order to enhance interactions, 98% said that planning and design of the pedestrian streets should incorporate facilities that encourage meetings (components for integration). They therefore proposed to have ample open spaces with seats along Aga Khan Walk, seats to be provided along Mama Ngina Street and more seats to be provided in Jevanjee Gardens. 2% were not sure what should be done.

Map 4.1: Part of Nairobi City Centre showing the Location of Aga Khan Walk



Source: Adopted from the City Council of Nairobi

An open space between Watalii Lane and the Moi Avenue; the Space has an opportunity to enhance more interactions, wide areas for socialization, arts and displays

Challenges

- Conflict of movement – vehicles and people
- Inadequate seating areas
- Noise from vehicles

Aga Khan Walk is next to the railways grounds that has a wide open space that has an opportunity to carry large number of users thus more interactions. The site is potential for socialization, arts, displays, and other recreational activities.

Challenges

- Poor linkage with Aga Khan Walk
- Conflict of movement
- Air Pollution
- Loud noise



**Plates 4.2: a) Users of Aga Khan Walk scramble for resting space under tree canopies, and below, a toilet along the pedestrian street**

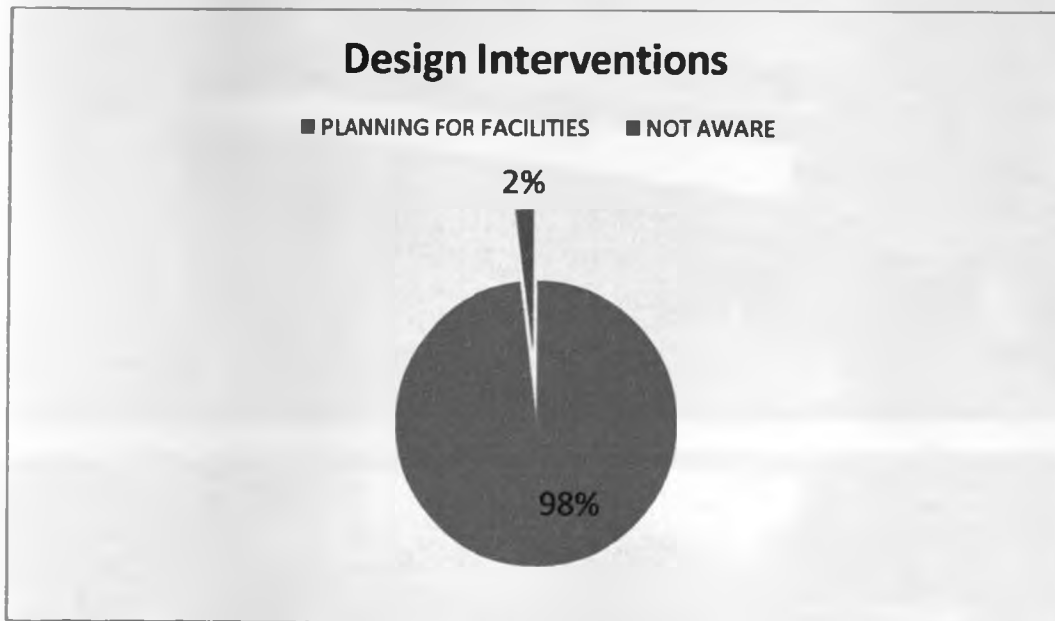


**Source: Author's Site Photo, 2012**

**Table 4.1: Showing Design Interventions**

Design to Accommodate Social Elements	Not Aware of What Should Be Done
98%	2%

**Fig 4.1: Showing Design Interventions**



**4.3. Facilities that would encourage interactions include:**

- Seating areas of ample areas, with trees species that provide shade and fresh air
- Spaces that are public, private and semi private
- Information centre; to provide information on urban population, composition of this population in terms of gender and tribes and communities' co-existence, existence of various social facilities in the CBD, history of the streets etc.
- Cultural centre for appreciation of cultural diversities e.g. an amphitheatre, cultural park etc. Concerts, cultural arts performances, and display of cultural abstracts amongst others.

- Outdoor eateries where people can intermingle as they eat.
- More commercial outlets along the streets that are consumer friendly, displays along the walk ways.

**Plates 4.3: Showing Seats that are not occupied**

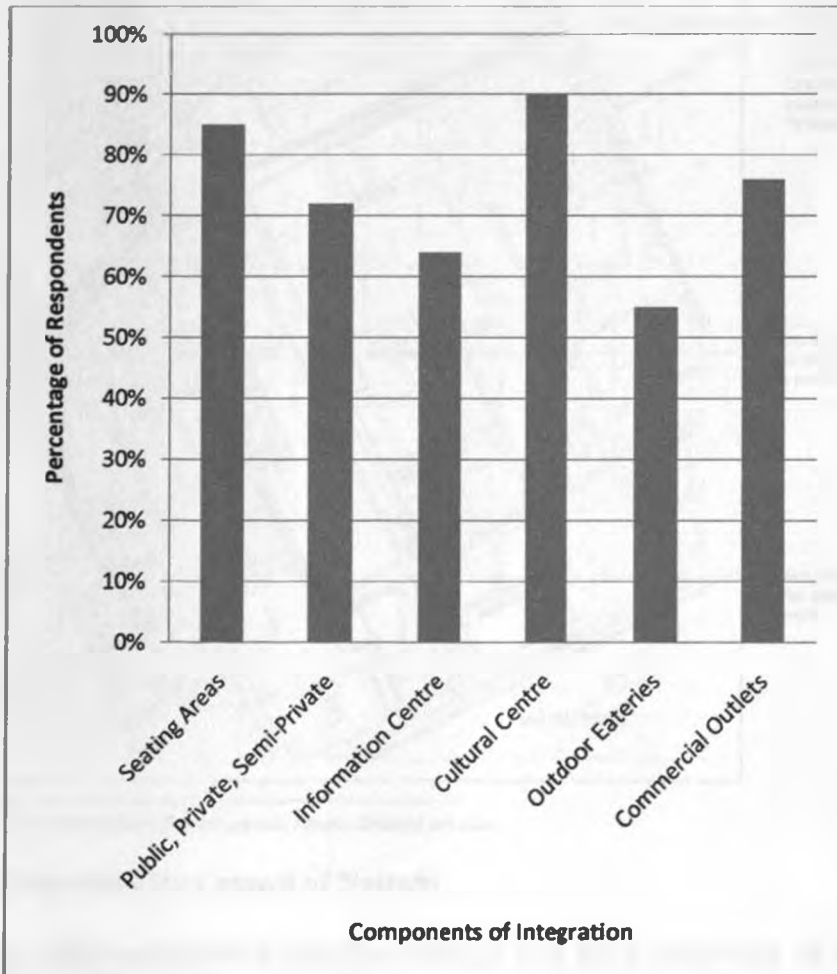


**Source: Author's Site Visit, 2012**

**Table 4.2: Showing Facilities to be Incorporated in the Street**

Ample Seating Areas	Public, Private, Semi-Private	Information Centre	Cultural Centre	Outdoor Eateries	Commercial Outlets
85%	72%	64%	90%	55%	76%

**Fig 4.2: Preferred Facilities to Enhance Interactions**

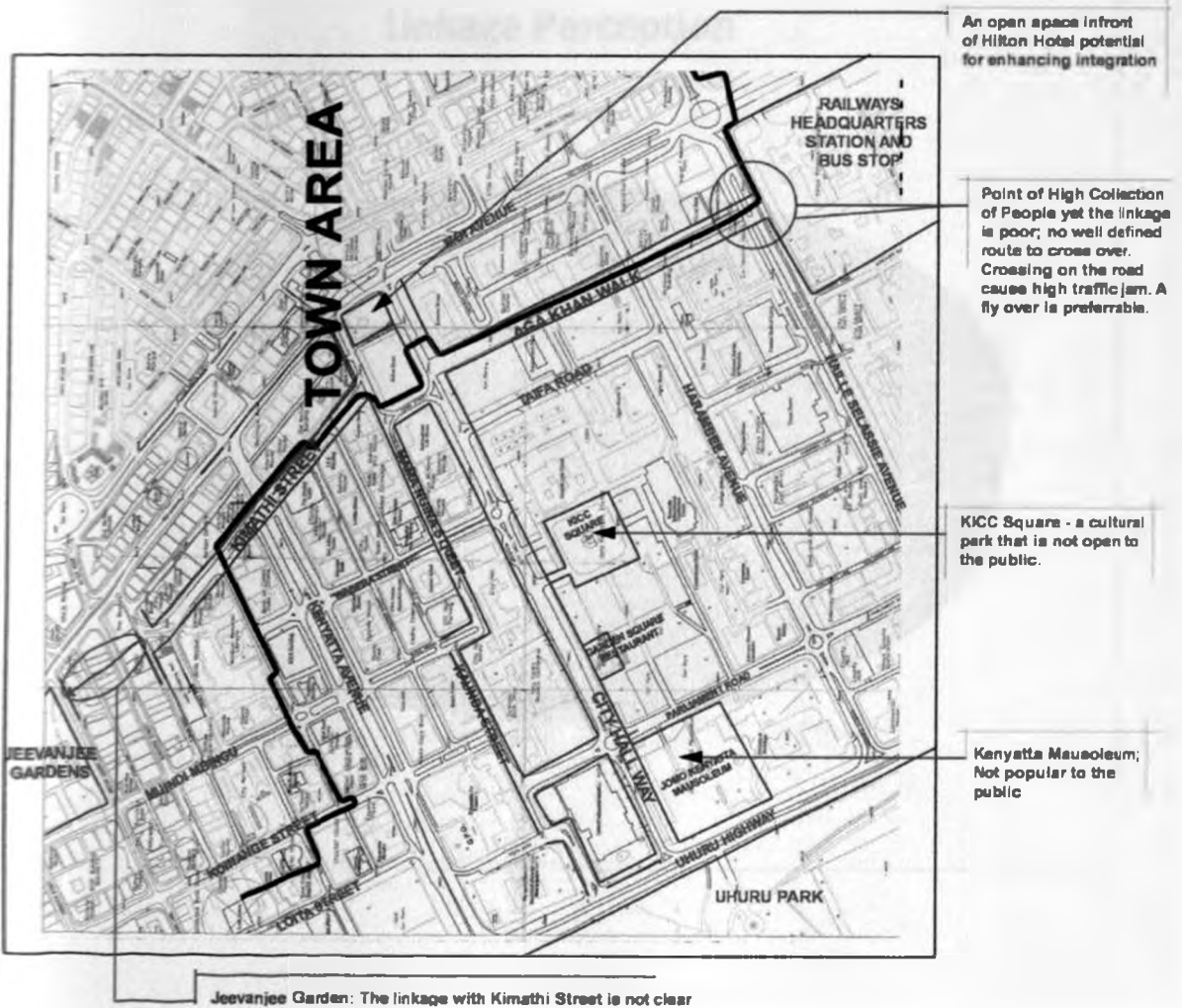




### 4.5 Linking Streets with Other Open Spaces

It was found that the connections of the streets to various public spaces are poor. These are bus terminus, Uhuru Park, KICC cultural and civic square, parliament square and the Jeevanjee gardens amongst others.

Map 4.2: Showing Linkages of Streets with Open Spaces

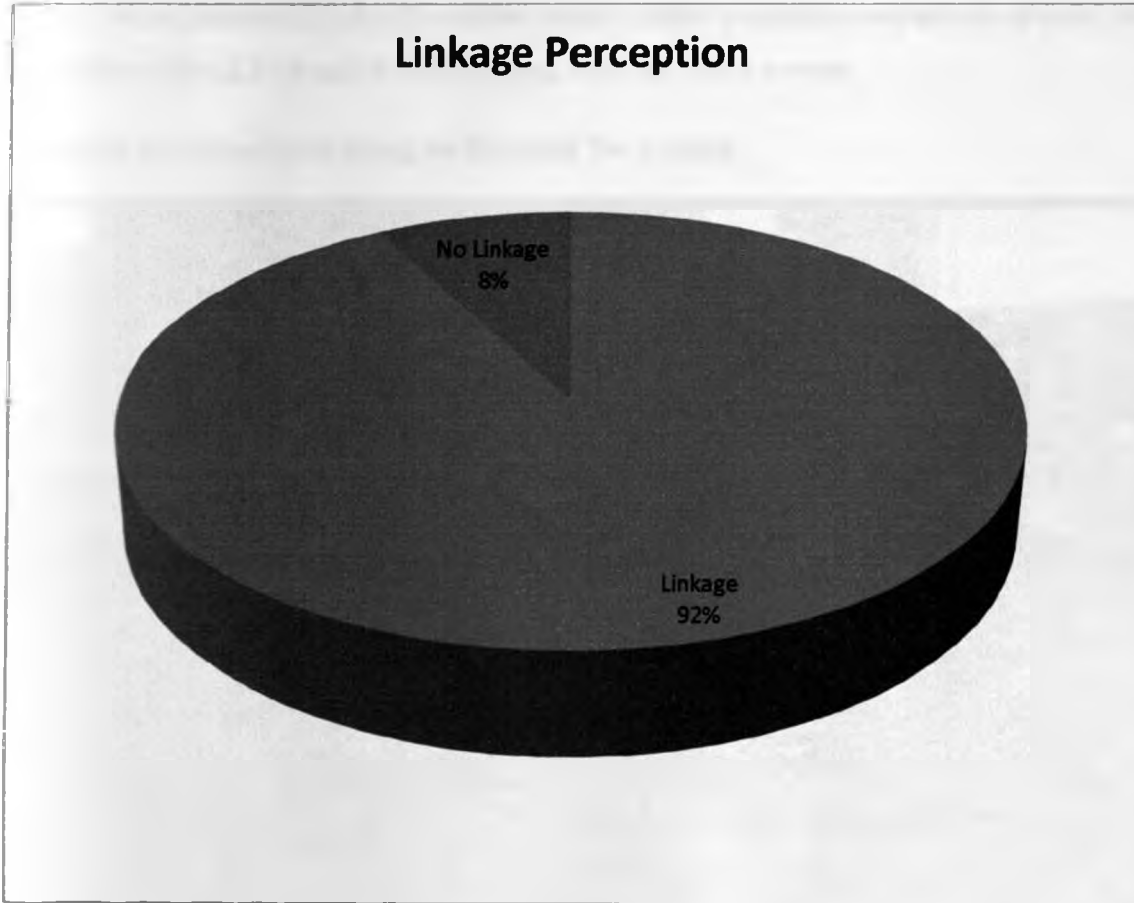


Source: Adopted from the City Council of Nairobi

92% of the respondents observed that the linkage was poor, majority of who were not familiar with some spaces. They agreed that proper linkage will increase their use and more integration would be promoted. They preferred junctions of vehicular

ways and pedestrians' ways to be well defined in order to avoid any conflicts of accidents. However 8% opposed the fact that linkage can enhance integration. They asserted that people's preferences determine where to be for social activities and linkage may not necessarily promote interactions.

**Fig 4.3: Percentage of Linkage Perception**



## 4.6 Attitude and Opinion Measurement

Kenyans above 20 years of age who included students and working class of people responded to the interviews by expressing their opinion and attitudes toward the following parameters.

### 4.6.1 Interactions

22% of the respondents felt that the current streets' ability to enhance interactions of users was not really achieved, 34% said it is fairly good, 46% felt that it is poor.

**Plate 4.4: An Open Space along the Site with No Activity**

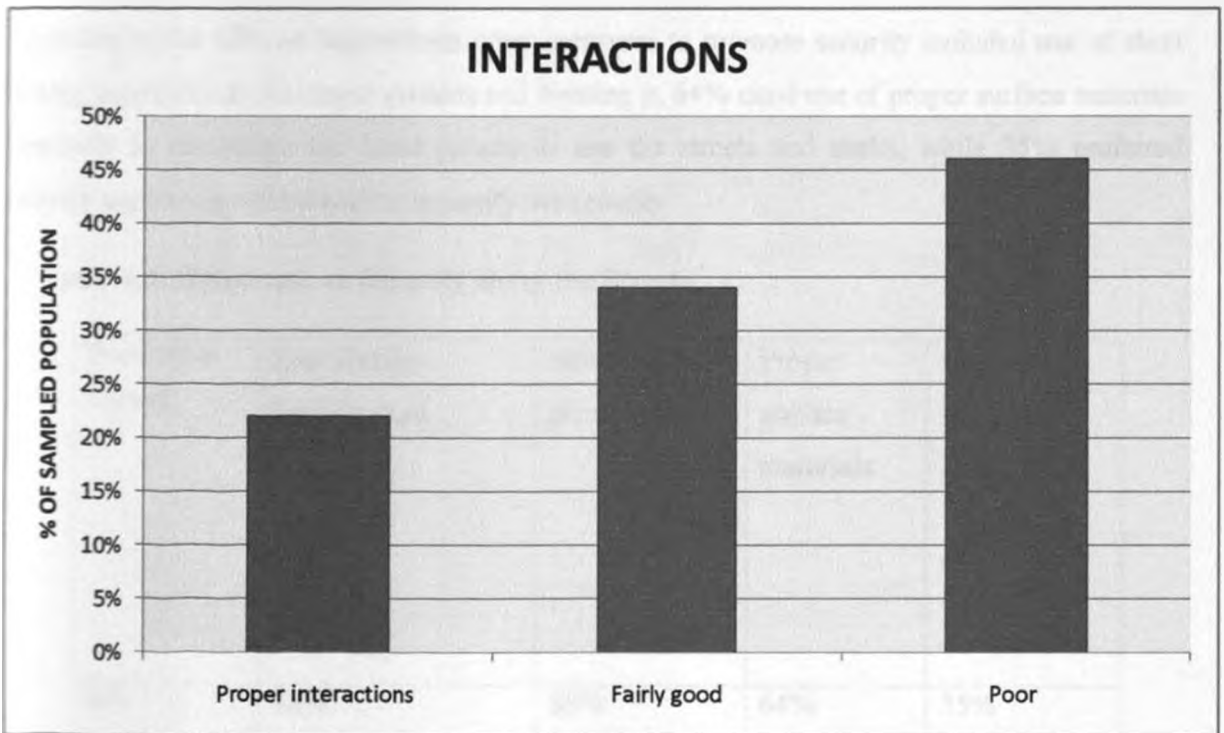


Source: Site Visit, 2012

Table 4.3: Showing percentage of respondents on interactions

Proper interactions	Fairly good	Poor
22%	34%	46%

Fig 4.4: Showing Percentage of Respondents on Interactions



#### 4.6.2: Security and Safety

Security and safety of the users of the integrated network of streets was seen to be important aspect for enhancing their use. Some areas have dark edges that needed proper lighting; 94% felt that street lighting and lighting in the parks would promote more use.

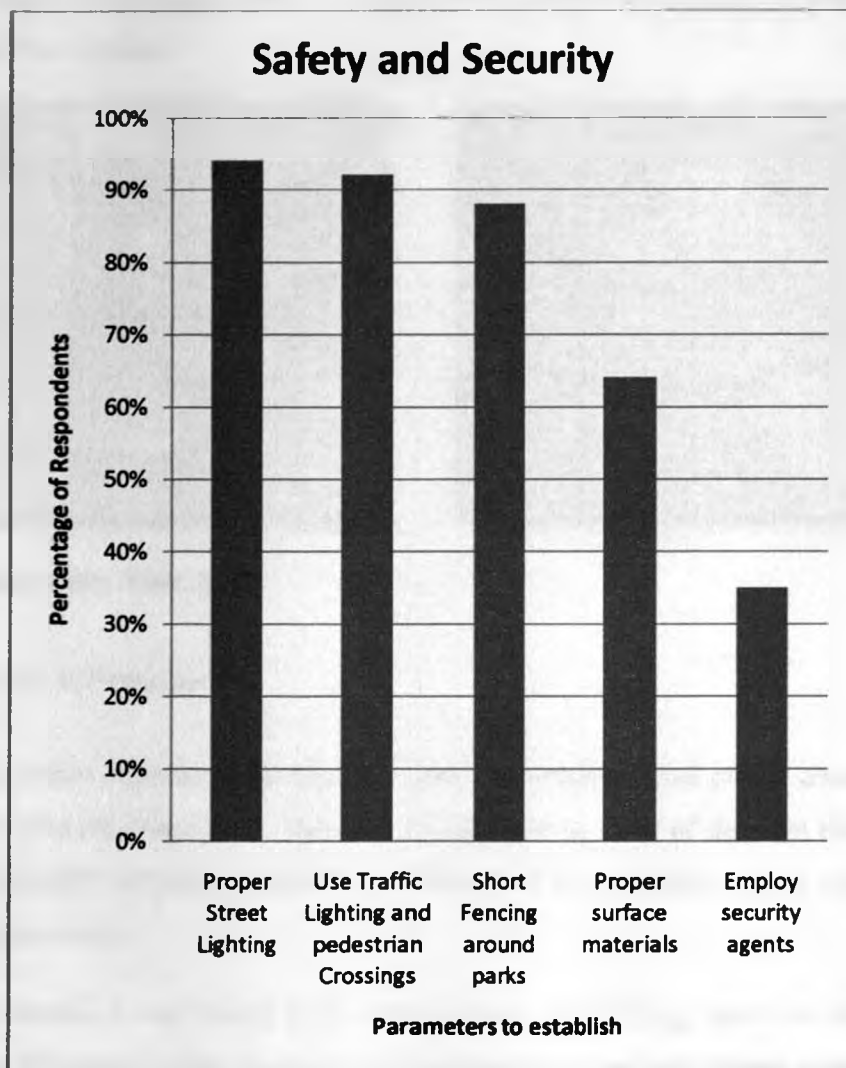
92% cited that use of pedestrian crossings across the vehicular streets and properly working traffic lights would also enhance security and safety of users especially when crossing the streets. Physically challenged groups of users to be taken care of by having special crossing areas designated for them.

According to the 88% of respondents other measures to promote security included use of short fencing especially in Jeevanjee gardens and lighting it, 64% cited use of proper surface materials especially to encourage the blind people to use the streets and parks, while 35% preferred security agents to be employed to intensify the security.

**Table 4.4: Responses on Security along the Streets**

Proper Street Lighting	Use Traffic Lighting and pedestrian Crossings	Short Fencing around parks	Proper surface materials	Employ security agents
94%	92%	88%	64%	35%

Fig 4.5: Showing Responses on Safety and Security



**Plates 4.5**

**a) Pedestrian Crossings across Harambee Avenue**



**b) Surface Materials Ensures Safety of Walking**



**Source: Author's Site Visit, 2012**

**4.6.3 Integration Information**

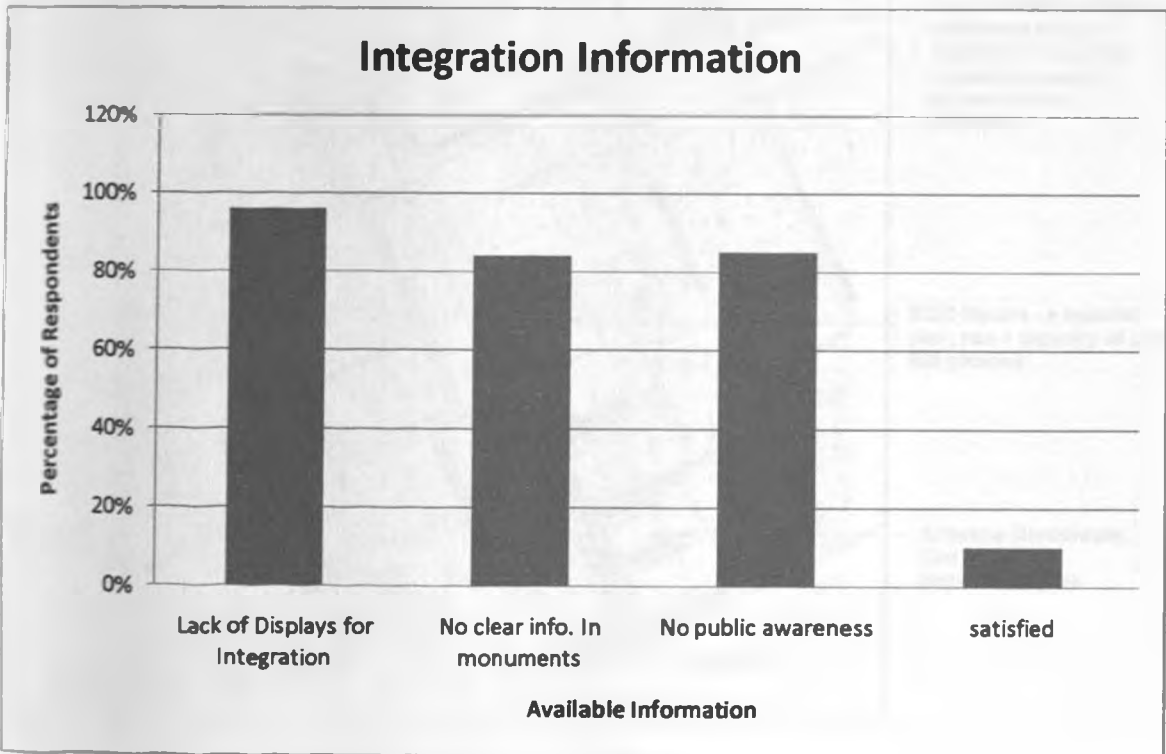
The literature review informed the need to create information and public awareness on the importance to promote integration. This was found to be in form of displays along the public spaces, establishment of murals and artistic pictures of co-existence, use of monuments and obelisks amongst others.

From the site study, it was found that such elements are lacking; there are no information facilities along the streets under investigation. Opinions from the interviewees were sought; 96% confirmed that the streets lacks basic information facilities that would display abstracts of integration, 84% saw no any integration information from the various monuments available and if it was there they could not decode it. 85% cited that the existing institutions did not create public awareness especially on the public spaces on the need for integration and cohesion. 10% were satisfied with what is available.

**Table 4.5: Integration Information**

Lack of Displays for Integration	No clear info. In monuments	No public awareness	satisfied
96%	84%	85%	10%

**Fig 4.6: Integration Information**

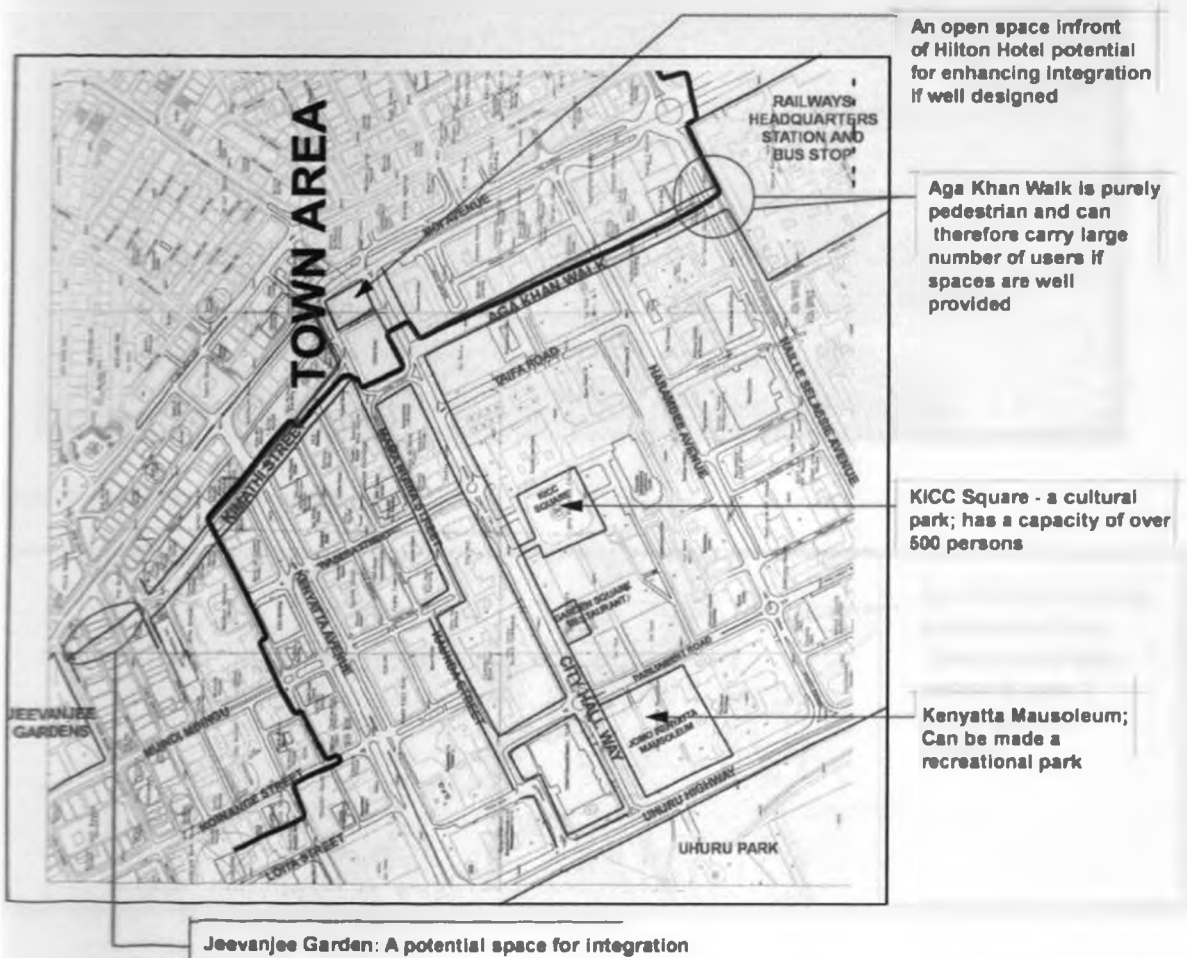




#### 4.6.4 Size of the Streets and their Associated Open Spaces

From the literature review, it was found that bigger sizes have the ability to attract more people and hence creation of varied activities. The kind of activity determines the size of the space for which it will occupy.

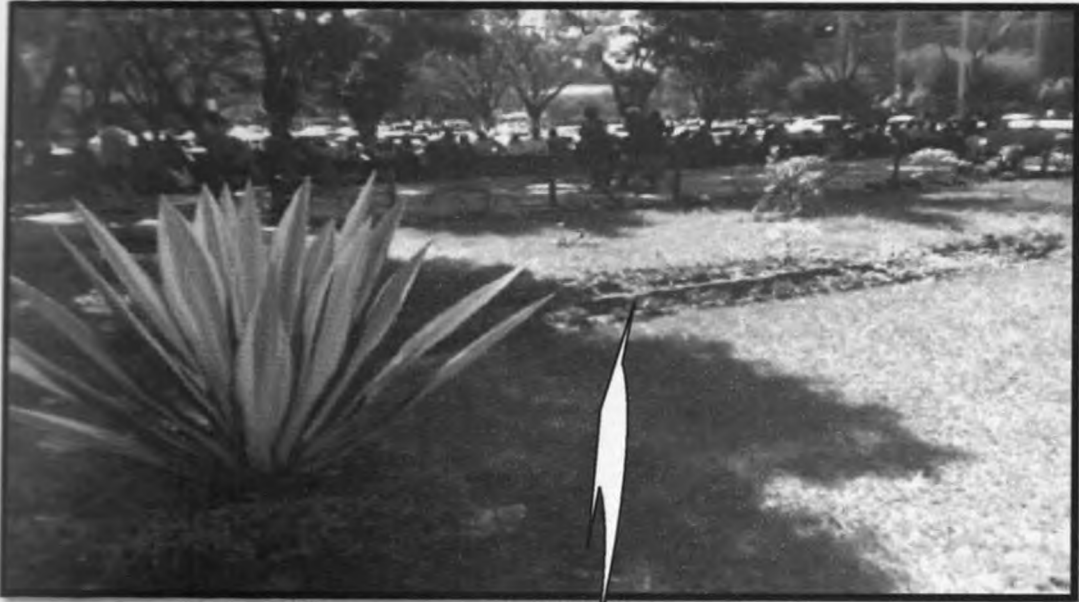
Map 4.3: Showing Streets under Study and Associated Open Spaces



Source: Adopted from the City Council of Nairobi, 2012

In the quest to find out if the users were satisfied with the available spaces, 35% of the respondents said that the streets were narrow if taken each in particular, while a network of integrated streets and their open spaces would be enough according to 55% of respondents. 10% were satisfied with the available small spaces.

**Plate 4.6: Space under No Activity and a Busy Background Full of Users**



Source – Author's Site visit, 2012

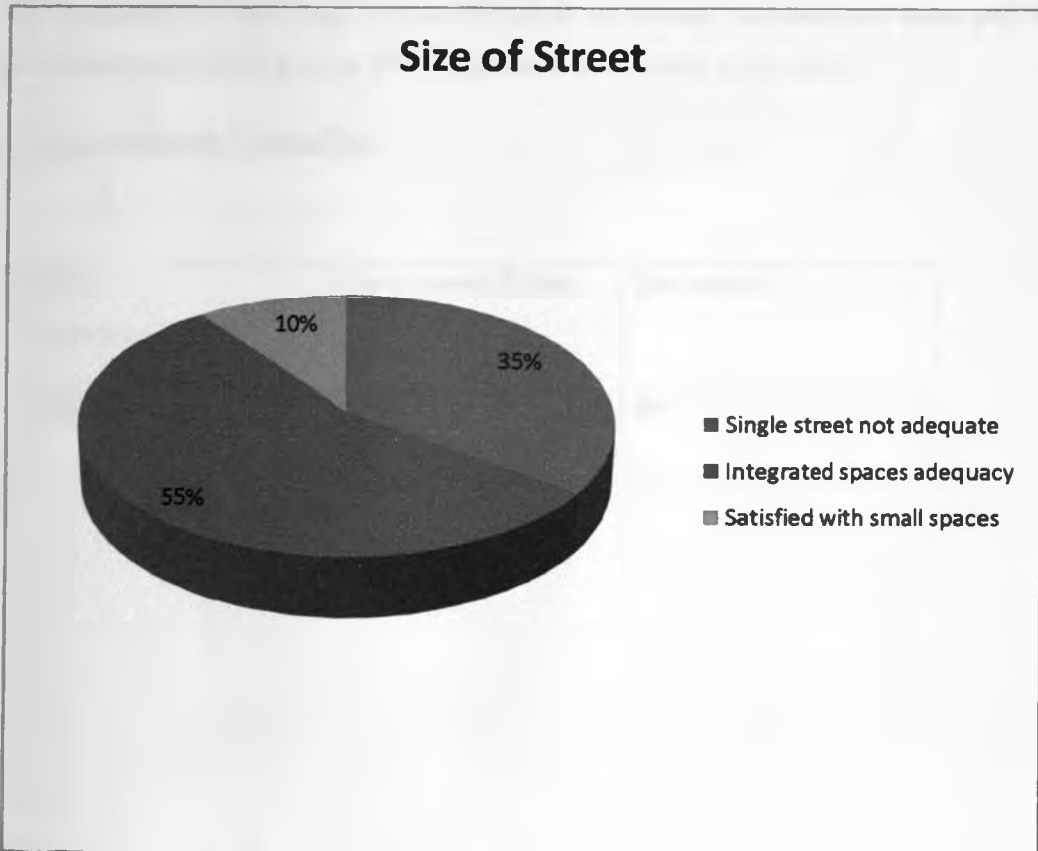


**A Part Map of the Study Area Showing Aga Khan Walk, adopted from the CCN**

**Table 4.6: Size of Social Interacting Spaces**

Single street not adequate	Integrated spaces adequacy	Satisfied with small spaces
35%	55%	10%

**Fig 4.7: Size of Social Interacting Spaces**



#### 4.6.5 Local Authority' Initiatives

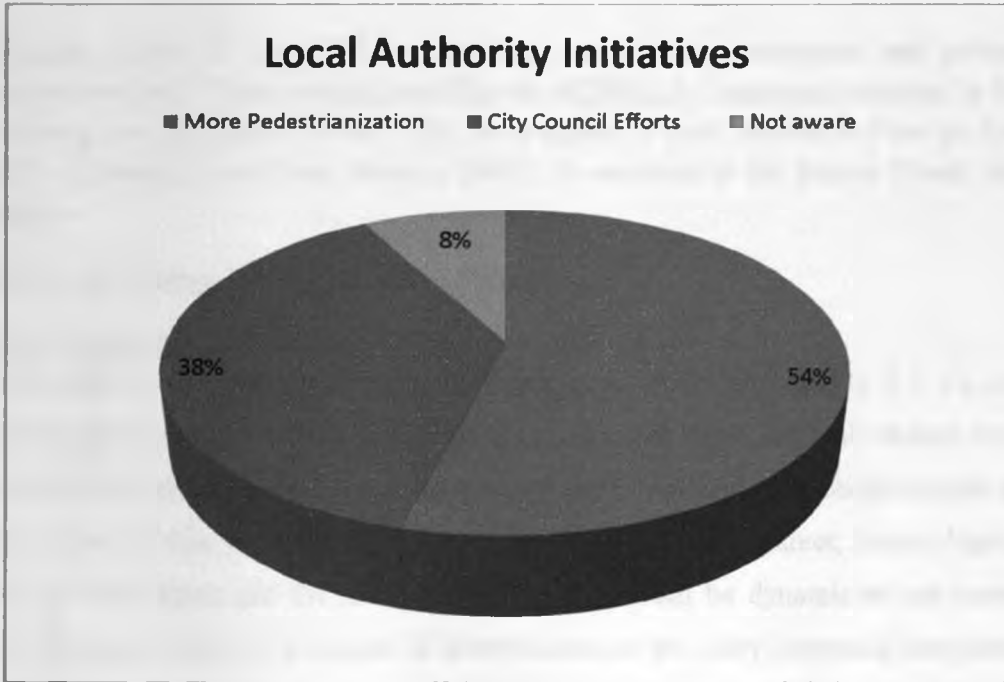
It was found from the literature review that the local authorities in collaboration with other stakeholders and the public should be involved in pedestrianizing the streets to meet the desires of the urban users as the local authority takes the lead. The study aimed to find out whether the streets users were recognizing the efforts by the City Council of Nairobi in pedestrianizing some streets and their recommendations.

38% of the respondents recognized the council's effort in maintaining Agha Khan Walk and Mama Ngina Street, establishment of Kimathi and Tom Mboya Monuments. 54% of the respondents were not satisfied with the efforts by the council so far in trying to pedestrianize the streets. They suggested that one street (Mama Ngina) is not enough and therefore more and that more improvements could still be done. 8% were not aware of what to be done.

**Table 4.7: Local Authority' Initiatives**

More Pedestrianization	City Council Efforts	Not aware
54%	38%	8%

Fig 4.8 Local Authority' Initiatives



## 4.7 Experts and Professionals Opinions

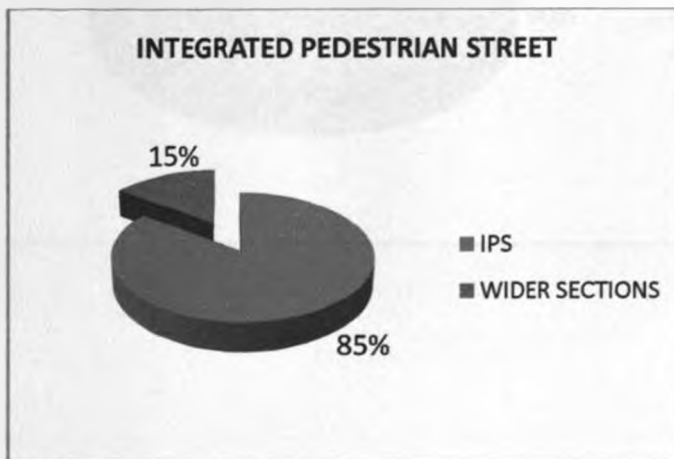
These are Kenyans above 30 years of age; working in various government and private institutions were interviewed. They included an officer at NCBDA, A Landscape Architect in the Ministry of Housing, and A planner at the CCN, An architect at Axis Architects Firm (a firm commissioned to redevelop Aga Khan Walk in 2005), A surveyor at the Kenya Power and Lighting Company.

### 4.7.1 Planning and Design of the Pedestrian Street

#### a) Integrated Pedestrian Street (I.P.S)

85% of the respondents felt that establishment of integrated pedestrian streets (I.P.S), can achieve cultural integration than the existing situation; 15% felt that Aga Khan walk should have wider sections with appropriate facilities that can enhance attractions and interactions despite its size. The 85% above felt that this integrating Aga Khan Walk, Kimathi Street, Mama Ngina, City Hall Way, Kaunda Street and the associated open spaces will be dynamic in use create mystery and incorporates variety of activities. In consideration of this, they expressed that motor vehicles should also be put into consideration, especially the public vehicles. Their routes should be clearly defined and redirected to new routes than the above and terminus should be re-planned to create harmony.

Fig 4.9: Respondents on views about IPS



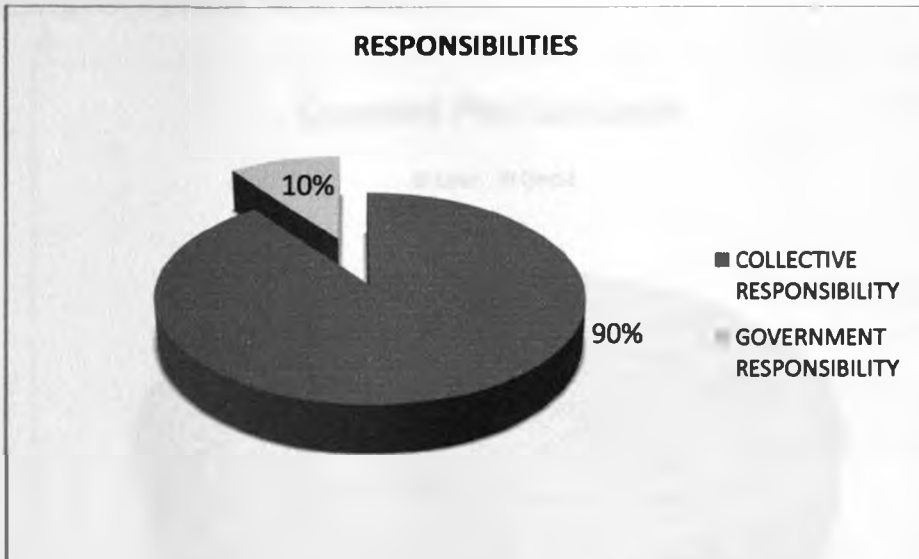
**b) Collective Responsibility (C.R)**

90% of the respondents felt that establishment of a pedestrian street that enhances social cohesion is a collective responsibility (C.R); stakeholders, NGOs, CBOs, government institutions, financial institutions and the public amongst others should be involved. This is because everybody will have a sense of ownership, that the project is not being imposed against the wishes of people.

However, decision making would delay the process as all have to unanimously agree on various major issues.

10% felt that the government should develop the project for the others to avoid any delay.

**Fig 4.10: Percentage on C.R**

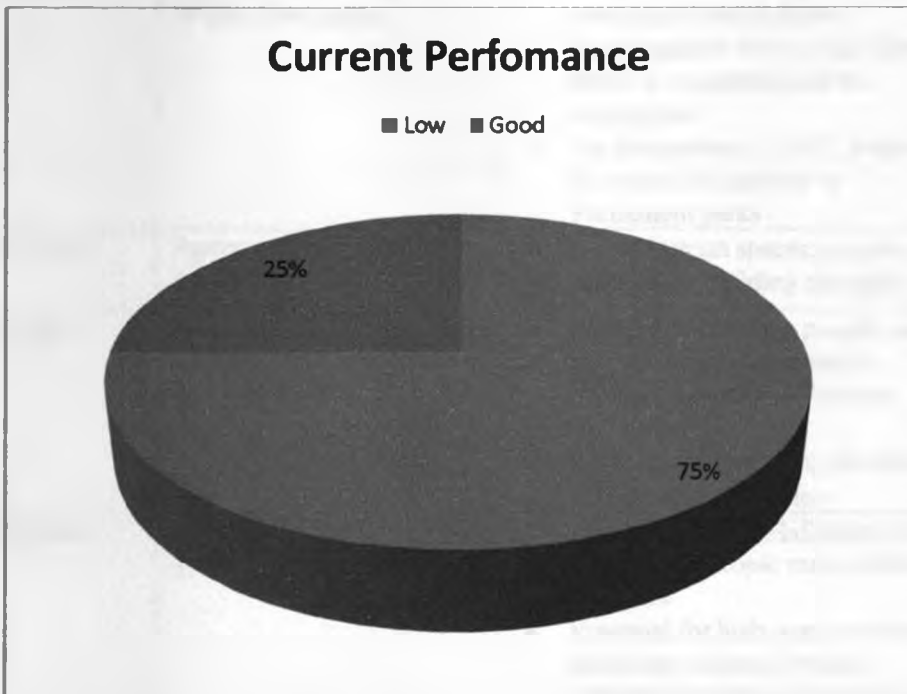


### c) Current Performance

The literature review showed that pedestrian streets are not only spaces for passing through but spaces to meet social, religious, economical and political needs of people. They offer good grounds for gatherings and interactions of people.

The study then sought the experts' opinions on the current performance of the study area. 95% of the respondents agreed that people do not just pass by but they use them especially the Aga Khan Walk and Mama Ngina Street as their meeting point and this is an indicator that pedestrian streets can be used as meeting points. They felt that more people would prefer to meet in the streets under study, if they have been redesigned for that purpose, so their current performance is low. Only 5% felt that the streets are performing well.

Fig 4.11: Percentage on Current Performance





## 4.8: Observational Checklist

**Ownership:** The streets are under the jurisdiction of the City Council of Nairobi, and managing for the use by the public.

### 4.8.1: The Spatial Adequacy (Sizes) of the Streets under Study

**Table 4.8: Spatial Adequacy**

No.	Street	Space Size	Adequacy
1.	Aga Khan Walk	Length- Apprx. 500M long  Width- Approx. 30M wide	<ul style="list-style-type: none"> <li>• Not enough spaces for proper interactions. No adequate seating areas, a few landscape elements, a few shady areas.</li> <li>• Wider areas near the junction of City Hall Way; more people seated</li> </ul>
2.	City Hall Way	Apprx. 900M long Width 45M wide	<ul style="list-style-type: none"> <li>• No adequate meeting points; meetings occur at edges.</li> <li>• Open space in front of the Hilton Hotel is a potential site for integration</li> <li>• No free access to KICC, Jomo Kenyatta Mausoleum or Parliament parks</li> </ul>
3.	Kimathi Street	Approx. 500M long Width 45M	<ul style="list-style-type: none"> <li>• No pedestrian spaces; people meet under building canopies</li> </ul>
4.	Mama Ngina Street	Approx. 350M long Width 45M	<ul style="list-style-type: none"> <li>• Pedestrianized way, people meet on pedestrian spaces and in groups especially at Wabera Junction</li> <li>• No seating areas along the streets</li> <li>• Trees create aesthetics</li> </ul>
5.	Kaunda Street	Approx. 350M 30M wide	<ul style="list-style-type: none"> <li>• One way at City Hall area; Is narrow and people meet under canopies</li> <li>• Potential for high number of users due to up coming Catholic University Campus, Holy Family Basilica Church and varied commercial activities</li> </ul>

**Table 4.9: Land-uses**

No.	Street	Activities
1.	Aga Khan Walk	Social activities , Religious, Recreational, Walking through, Commercial activities  Services – power and electricity offices, Communication (Telcom), Banking (Co-operative Bank, Commercial Bank)
2.	City Hall Way	Transport, Banking, Social, Walking through, Civic (KICC & Parliament), Commercial activities
3.	Kimathi Street	Commercial, Social, Services (Banking) and Fueling, Communication (Nation Centre), Transport
4.	Mama Ngina Street	Transport, Social, Banking services, Educational Communication, Commercial, Recreational
5.	Kaunda Street	Civic, Commercial, Religious, Social, Transport, Banking services, Educational

#### 4.9 Summary of Findings

From the views, opinions and discussions with the respondents, it can be summarily concluded in the following general findings:

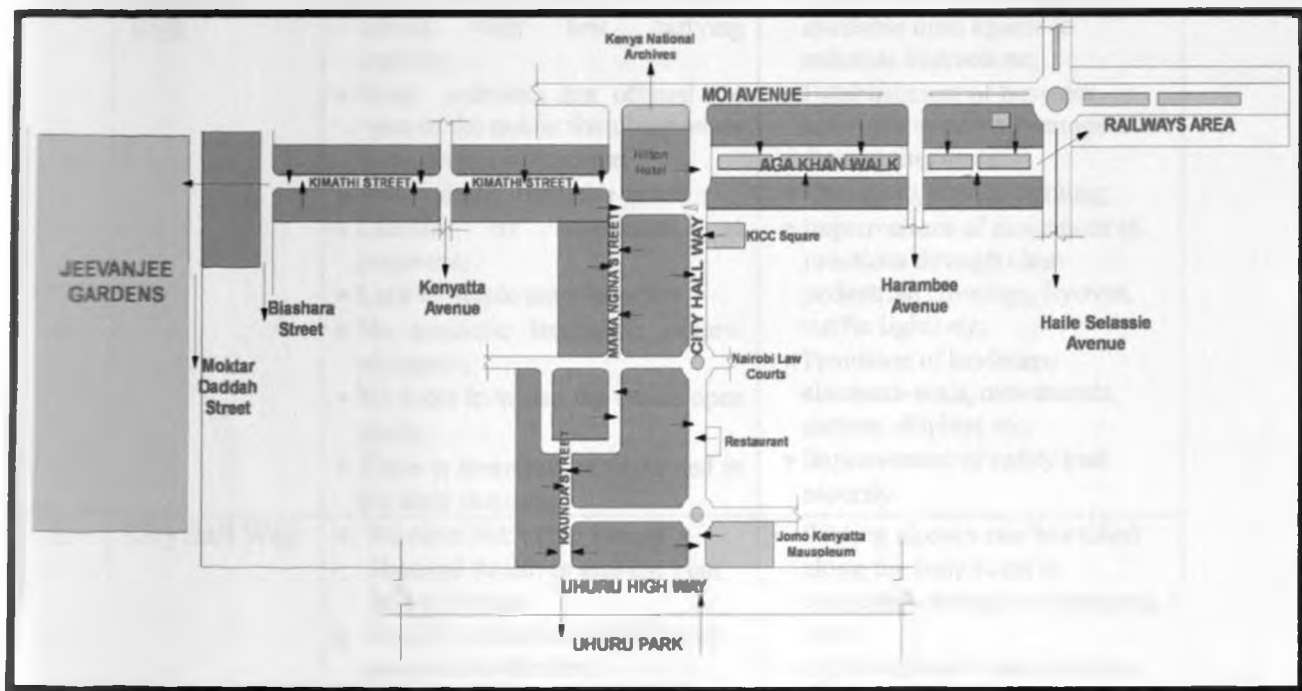
- There is no integrated network of Pedestrian Street in the CBD that can maximally promote cultural interactions that can further enhance social cohesion.
- There are no policies, programs and strategies in Kenya that incline to establish pedestrian streets that would enhance social cohesion and integration.
- There is need to pedestrianize some streets under study as they are significant in enhancing integration because they are along important activities that generate high number of pedestrians. Examples are commercial outlets, educational, civic and cultural parks e.g. at KICC, bus terminus such as Ambassador and Kencom etc.
- Integration of the existing activities along the streets under study with pedestrian ways will promote integration. Pedestrianizing results into creation of more pedestrians along the streets and this brings people closer to the existing activities. By so doing, more interaction will be enhanced for example between the commercial owners (sellers) and pedestrian customers (buyers).
- There has been a little effort by the local authorities to improve adequately the conditions of the existing streets in terms of materials, public amenities, and seats, landscaping and enlarging the pedestrian spaces.
- The existing pedestrian street (Aga Khan Walk) is not adequate enough to enhance social cohesion and integration as it is narrow and lack various basic facilities.
- The existing landscape elements in the streets do not have clear symbolic meanings; there is no adequate background information to explain their historical development.
- There exist cultural buildings but it is not clear which activities they contain as they are not accessible to people. Example is the Kenya National Archives premises at the junction of the City Hall Way and Moi Avenue.

- Security measures have not been remarkably realized hence discouraging the use of the pedestrian spaces and their adjacent open spaces as social meeting places.
- Information centre on public meeting places would encourage interactions as people will mingle in the search of information.
- Lack of enough research, professionalism and technical knowhow on the part of local authorities involved in the development of pedestrian streets has led to the short of facilities that can promote social interactions.

### 5.0: Summary of Challenges, Constraints and Opportunities

The study area poses varied constraints that inhibit proper utilization by the pedestrians and thus restrains proper integration. However the establishment of integrated network of pedestrian streets has opportunities for enhancing integration as shown in the street network grid and the table below:

**Fig 5.0: Proposed Integrated Network of Streets**



The Streets include: Aga Khan Walk, City Hall Way, Kimathi Street, Muindi Mbingu Street and Kaunda Street.

The proposed network poses some development constraints in that their connectivity with each other is not clear i.e. they are not directly connected. There are either buildings standing on the way or metal railings, for example at the junction between Aga Khan Walk and City Hall Way there is Hilton Hotel that inhibits direct linkage with Kimathi Street. Instead, an arcade has been established through the Hilton Building but it is neither conspicuous nor popular to the pedestrians.

However, there is an opportunity to integrate them together to form a network and this will enhance pedestrians use and linkage to their adjacent open spaces and by extension far spaces and facilities such as McMillan Memorial Library along Banda Street, 100M off Kimathi Street.

Other places include the University of Nairobi main campus ground and the Central Park amongst others.

Table 5.0: The table below shows the summary of constraints and opportunities in the development of each street and in the relationship with another street:

No.	Street/Space	Challenges / Constraints	Opportunities
1	Aga Khan Walk	<ul style="list-style-type: none"> <li>• Entire street is short, and narrow spaces with low carrying capacity;</li> <li>• Most activities are official not open to the public than businesses that enhance interaction ;</li> <li>• Poor lighting along the street</li> <li>• Conflict of movement at junctions;</li> <li>• Lack of ample seats/benches</li> <li>• No symbolic landscape cultural elements ;</li> <li>• No room to widen the entire open space;</li> <li>• There is insecurity at night and in the early morning</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunity to redesign the available open spaces to enhance interactions;</li> <li>• Establishment of business activities to take advantage of the existing users;</li> <li>• Chance to provide lighting;</li> <li>• Improvement of movement at junctions through clear pedestrian crossings, flyover, traffic lights etc;</li> <li>• Provision of landscape elements-seats, monuments, statues, displays etc;</li> <li>• Improvement of safety and security.</li> </ul>
2	City Hall Way	<ul style="list-style-type: none"> <li>• No clear link to the Kenya National Archives and the Tom Mboya Statue;</li> <li>• Conflict of movement between people and vehicles;</li> <li>• Lack large spaces for pedestrians along the street;</li> <li>• Lack of clear link to open spaces alongside; KICC square, Parliament Park, Jomo Kenyatta Mausoleum and Uhuru Park;</li> <li>• Connectivity to the streets under study in not clear;</li> <li>• Lack of room to expand the pedestrian ways due to existing buildings and various structures;</li> <li>• Street lighting is not even hence insecurity at Uhuru Highway Junction in the late evenings.</li> </ul>	<ul style="list-style-type: none"> <li>• Seating alcoves can be etched along the busy street to encourage seating and stopping over;</li> <li>• Improvement of movement at junctions through provision of clear crossings, traffic lights, flyover at Uhuru Highway Junction as appropriate;</li> <li>• Connectivity of the street to the existing adjacent open spaces – KICC Square, Parliament Park, Jomo Kenyatta Mausoleum etc to enhance integration;</li> <li>• Improvement and Maintenance of the walk way spaces in terms of materials, lighting and aesthetics to encourage the use by all persons including physically challenged;</li> </ul>
3	Kimathi Street	<ul style="list-style-type: none"> <li>• The street is vehicular use than pedestrians;</li> </ul>	<ul style="list-style-type: none"> <li>• The street can be pedestrianized to widen pedestrian spaces and</li> </ul>

		<ul style="list-style-type: none"> <li>• Pedestrian movements are under buildings canopies, some being narrow for any social activity;</li> <li>• No room for expansion of pedestrian ways due to existence of buildings;</li> <li>• The street has a lot of smoke due to presence of high number vehicles</li> <li>• Narrow spaces for landscaping</li> <li>• Lack of outdoor seating areas</li> <li>• Conflict of movement between vehicles and people at the junction of Kenyatta Avenue</li> <li>• Traffic congestion</li> <li>• Poor link with Jeevanjee Gardens</li> </ul>	<p>therefore properly enhance pedestrian use;</p> <ul style="list-style-type: none"> <li>• Landscaping the pedestrianized street spaces, trees planting along which have the ability to reduce traffic smoke and thus lower the pollution;</li> <li>• The street will then have wider pedestrian spaces for provision of benches appropriately;</li> <li>• Chance to establish business activities to take advantage of the population along;</li> <li>• Improvement of movement to avoid conflict between people and vehicles;</li> <li>• Reduction of traffic congestion;</li> <li>• Proper linkage with Jeevanjee Gardens.</li> </ul>
4	Mama Ngina Street	<ul style="list-style-type: none"> <li>• Poor link with Aga Khan Walk and Kimathi street;</li> <li>• No room for expansion due to existence of buildings;</li> <li>• No seats or benches even under the trees canopies;</li> <li>• Short pedestrianized distance;</li> <li>• Narrow spaces for social activities;</li> <li>• Conflict of movement at Wabera Junction and at Kimathi Street;</li> <li>• Improper link of indoor business activities with outdoor spaces.</li> </ul>	<ul style="list-style-type: none"> <li>• Proper and clear linkage with Aga Khan Walk through arcade and proper walkways;</li> <li>• Provision of seating alcoves and trees to modify micro-climate of the street;</li> <li>• Extension of the pedestrianized portion of the street to City Hall Annex;</li> <li>• Improvement of movement through clearly defined crossings;</li> <li>• Linkage of indoor business activities with the outdoor spaces</li> </ul>
5	Kaunda Street	<ul style="list-style-type: none"> <li>• The street is narrow for social activities;</li> <li>• Lack of seating areas due to narrowness of the street;</li> <li>• Conflict of movement between vehicles and people at Koinange Street, Muindi Mbingu Street, and Uhuru High Way Junctions;</li> <li>• Lack of nodes (offside open spaces); the available is for Holy Family Basilica;</li> <li>• Lack of room for expansion due to existing buildings.</li> </ul>	<ul style="list-style-type: none"> <li>• Linkage of business activities with the outdoor spaces;</li> <li>• Improvement of movement to avoid conflict of pedestrians and vehicles;</li> <li>• Landscaping to enhance aesthetics and provide seating areas.</li> </ul>

## 5.1 Conclusions and Recommendations

Conclusions and recommendations have been based on the literature review and the findings.

### 5.1.1: Introduction

It is worth noting from the literature review and the findings that pedestrian streets are potential tools for enhancing social integration and cohesion. Social integration has been defined in different terms but meaning as the process of promoting the values, relations and institutions that enable all people to participate in social, economic and political life on the basis of equality of rights, equity and dignity. Three principles of social integration were identified as noted by Fraser 2005. These include *Redistribution, Representation and Recognition*. Redistribution means allocation of appropriate instruments, tools and components that promote integration in an equal measure for everyone. Representation means to stand for everyone; everybody should be represented in all endeavors of promoting integration; Representation of peoples' voice in order to ensure that the interests of different groups are taken into account in decision-making and resource allocation. The World Summit for Social Development (WSSD) commits governments to an agenda that support increased participation of people in all levels of decision making as well as greater transparency and accountability. The WSSD also acknowledge the need for policy responses to the strengthened demands for recognition of the identities of minorities and other social groups and action to address any form of discrimination.

The ultimate product is that when redistribution and representation are effectively done, recognition is born. Every aspect of integration is therefore recognized to the fullest. Recognition of diverse social needs, cultures and identity in order to promote respect, dignity and co-operation among all groups of people.

Therefore social integration can be enhanced using pedestrian streets through fair representation, redistribution and recognition.



## 5.1.2 Recommendations

### a) Policies and Programmes Formulation

The Government of Kenya has put an effort to create cohesion through development of various policies and initiatives. For example the formulation and development of a policy for integration and cohesion referred to as National Cohesion and Integration Policy. The aim was to create a sense of togetherness, social equity and justice among people of Kenya and for all citizens to appreciate the diversities of varied tribes of Kenya.

The need for integration has also been pointed out in Chapter 2 of the Constitution of Kenya for instance, national values and heritage, its principles of governance including national unity, social justice, inclusiveness, and equity.

The Truth, Justice and Reconciliation Commission is a Government of Kenya initiative formed after 2007 -2008 post election violence with inclinations to restore peace and cohesion among communities of Kenya.

The above policies are in the process of implementation and no much cohesion can be attributed to their existence so far.

Moreover, there has been no policy for integration and cohesion through planning, design and development of pedestrian streets and spaces which are arenas for public gathering. The government should therefore develop policies and programmes that aim at establishing a network of pedestrian streets that have the capacity to promote social integration and cohesion i.e. ensuring cross-sectoral coherence and a set of policies that are mutually compatible in terms of promoting equality and well-being for all groups of people including the disadvantaged groups. The policies should set the principles, values and institutions for street's social integration. As Miller 2005 says that principles, values and institutions need to be in place to enable each person to get a fair share of the benefits, and carry a fair share of the responsibilities, of living and co-existing together as one community.

The policies should create a link between people's social needs, economic and the political aspects and levers necessary to ensure that these policies and the street resources are in place to meet those needs as well as accommodating people's cultural differences.

The policies will therefore promote the aspect of multiculturalism. Multiculturalism has become a model for addressing cultural and ethnic differences (Marc 2008). Multiculturalism promotes the rights of all groups defined by their culture and ethnicity. It is associated with the idea of celebrating diversity (Percival 2007). Multiculturalism preserves a central core of common human rights valid to all people but complements these with specific rights for minority groups (Marc 2008).

In this respect, the existing off street parks like KICC Cultural Square along City Hall Way should be used to promote multiculturalism through development of programmes that bring people of all tribes together. For example cultural arts and displays of different cultural practices should be encouraged using a policy measure; creation of cultural weeks in certain periods of the year would encourage interactions and appreciations of varied cultural diversities and in so doing integration and cohesion will be promoted.

#### **b) Site Planning and Development of the Integrated Network of Pedestrian Streets**

A site plan shall provide for the interrelationship of all elements on the site and the coordination of these elements with existing developments or natural features found on adjacent sites. The design process shall include consideration of the impact on the City, the surrounding neighborhood, nearby streets, and adjacent properties. A thorough analysis of on-site features and full recognition of off-site factors which will influence the development are expected to be reflected in each set of plans presented for development. All open space should be designed to be accessible and usable by occupants of the development. Functional open space enhances circulation within a site and contributes to the site's aesthetic qualities.

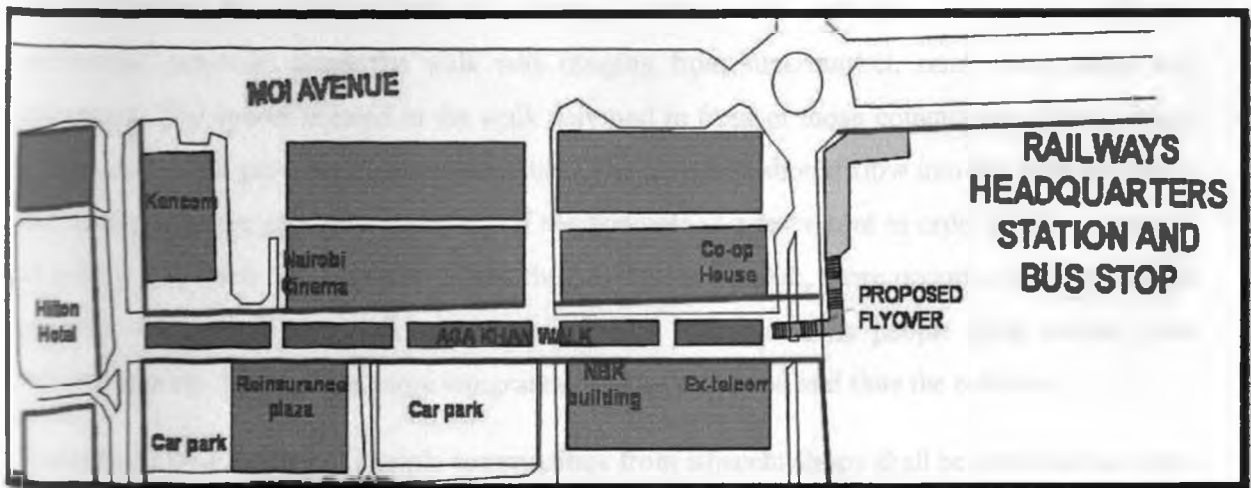
Setbacks of buildings must conform to the setback standard required by the zoning district where the development is located. Where buildings affect sight lines at intersections of public spaces and streets, approval and assessment of the development shall be done by the local authorities.

The local authorities in partnership and consultations with other stakeholders and the public shall establish a network of pedestrian spaces. This will cover the study areas as follows:

ii) **Aga Khan Walk** – this should be linked effectively with the Railways Bus Terminus as this is high population point. A link should be constructed across the Haille Selassie Avenue, from the median of the Aga Khan Walk between the Telkom Building and the Co-operative House Building into the open landscaped park of the railways terminus in order to facilitate the movement of pedestrians from the railways terminus to the Aga Khan Walk.

The railways terminus has a landscaped open space in the median surrounded by the vehicular space. The space should be landscaped with appropriate trees species that have ability to provide shade, and those which will absorb the smoky fumes for the comfort of the users. In order to enhance interactions, the space should be facilitated with benches to encourage groups sitting. Spaces for encouraging informal business activities, arts and performances etc should be designed within. Most importantly the area shall be provided with public utilities.

**Fig 5.1: A Plan Layout Showing a Link of the Walk Way and the Railways Terminus Using a Flyover**



Source: Designed by the Author

- **Pedestrian Circulation**

The street plan shall clearly express the separation between pedestrian and vehicular traffic at junctions. Clearly defined buffers enhance the attractiveness of the streetscape and promote pedestrian safety; where substantial traffic volumes occur on certain stretches of on-site drives, a sidewalk shall be necessary to separate pedestrian and vehicular traffic.

Pedestrian circulation layout shall take into account all off-site generators of pedestrian movement, such as adjacent open spaces, religious centers, retail centers, terminus and parkings etc.

- **Traffic Lighting** - Properly working traffic lights should be established appropriately as well as pedestrian crossings across Harambee Avenue to avoid vehicles and people's conflicts. Safety and security will also have been enhanced.

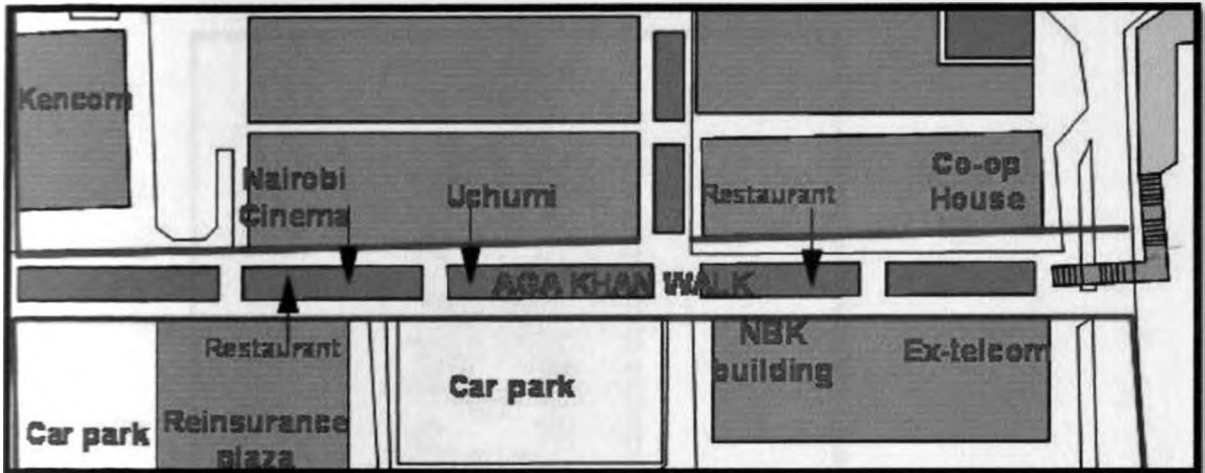
- **Street Lighting** – the walkway should be lit more instead of depending on the lights from the buildings. The lighting will lit the sunken parking area and the entire walk way.

- **Materials** – the walkway to be maintained and the dilapidated floor finishes to be replaced. The surface materials that would guide the movement of the physically challenged persons to be put, proper landscaping and public amenities should be established evenly.

- **Linking the spaces with the existing commercial activities** – there are different commercial activities along the walk way ranging from supermarket, small retail shops and restaurants. The spaces created in the walk way and in front of these commercial outlets should be compatible and promote business activities. The activities should flow into the outdoor spaces and seating shall be provided especially if the business is a restaurant in order to allow users to sit as they take their refreshments. When the businesses flourish, more opportunities are created and may stream into the walkway hence enhance interactions as people shop around, take refreshments etc. by so doing more integration will be enhanced and thus the cohesion.

Spaces that allow display of sample commodities from adjacent shops shall be provided as a case for the commodities that are sold indoors, and to usher the pedestrians in the shops. This shall create a room for buyers and sellers interactions and hence integration.

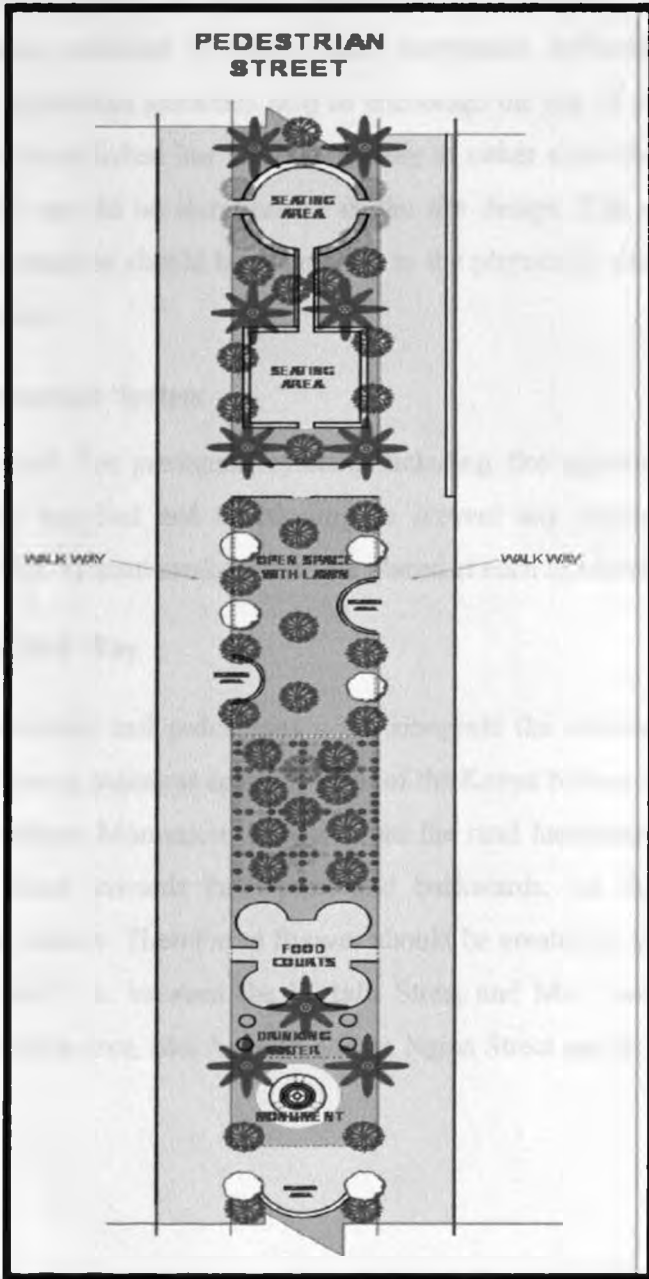
Fig 5.2: A plan Layout Demonstrating Linkage of Indoor Business Activities with Outdoor Spaces



Source: Designed by the Author

- **Ample recreational spaces** – the spaces should be designed to accommodate more people, spaces for smaller groups of people, public and semi – private spaces, using appropriate landscape elements to screen the noisy and less noisy areas. Surface accent strips of brick or textured paving to define pedestrian walk- ways and recreational spaces should be utilized. Pavement intended for pedestrian traffic shall be stable, firm and skid resistant and shall not have an irregular surface that is uncomfortable or dangerous to walk on. Provisions for access for disabled persons must be incorporated into the overall pedestrian circulation system. Sidewalks and plazas should be made comfortable for use by pedestrians through the use of landscaping, overhangs and canopies in order to provide shade and non-heat absorbing materials. This aspect will create a comfort zone for the users and therefore encourage more time spent in the spaces and hence more interactions.

Fig 5.3: A Plan Layout Showing Designed Open Spaces along the Walk Way



Source: Designed by the Author

- **Public Amenities**

Comfortable and attractive street furniture that is accessible to the physically disabled should be provided in public spaces for public enjoyment and comfort. Street furniture may include seating and tables, drinking fountains, trash receptacles, information kiosks, and directories. These types of pedestrian amenities help to encourage the use of public space. Where the space is located on an established bus route especially at either sides the Kencom building, bus turn outs and shelters should be incorporated in the site design. The shelters shall have seating in rows. All site amenities should be accessible to the physically disabled. All facilities shall be usable by everyone.

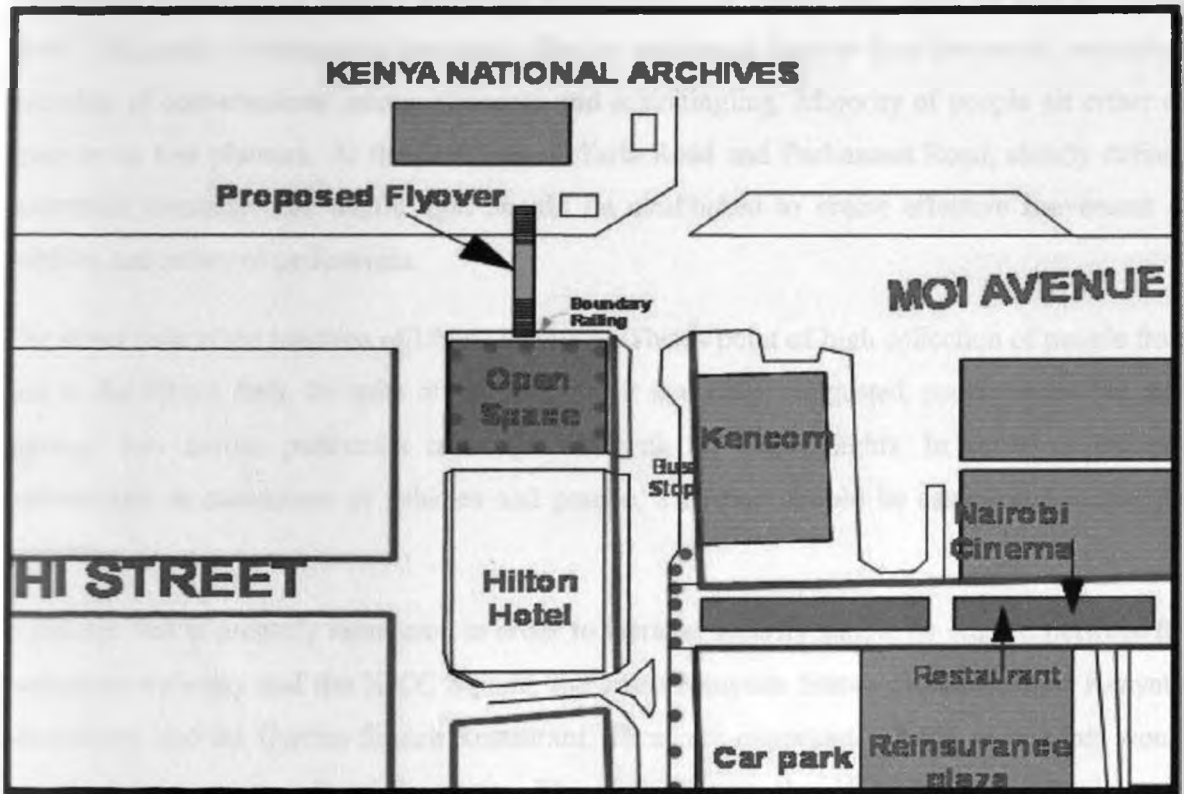
- **Fire Protection System**

A fully operational fire protection system, including fire apparatus, fire hydrants and water supply, shall be installed and functioning to prevent any incidence fire explosion (disaster preparedness). Fire hydrant markers shall be placed at each fire hydrant.

- ii) **City Hall Way**

The street is vehicular and pedestrians walk alongside the vehicles. At the junction with Moi Avenue can be seen a populous space in front of the Kenya National Archives and conspicuously standing Tom Mboya Monument. People cross the road haphazardly from City Hall Way and Mama Ngina Street towards that space and backwards. As this point has more vehicles, congestion is inevitable. Therefore a flyover should be created to land at the open space in front of the Hilton Hotel i.e. between the Watalii Street and Moi Avenue. This flyover will carry people from Kencom area, Moi Avenue, Mama Ngina Street and from Tom Mboya Street areas.

Fig 5.4: A Plan Layout Showing the Open Space and the Proposed Flyover



Source: Designed by the Author

This Hilton Hotel open space should be well landscaped and benches to be provided as appropriate and a 1.2M railing to be established at the boundary with the Moi Avenue to enhance safety of users. Alternatively the existing one should be reinforced as it has currently fallen apart at some points. Drinking water fountains should be erected in the space in order to make the place more comfortable to stay in. Appropriately, small commercial outlets should be established at strategic areas.

The space is also adequate for display of suitable information on cultures, integration and peace awareness, information to promote co-existence among different communities amongst others either electronically or in hard copies (advertisement boards).



The pedestrian paths towards parliament road to be clearly defined with suitable surface finishes and seating alcoves to be created alongside to accommodate people who stand for lack of seating areas. The seats or benches to face each other to encourage face to face directions, encourage initiation of conversations among strangers and intermingling. Majority of people sit either on grass or on tree planters. At the junctions of Taifa Road and Parliament Road, clearly defined pedestrian crossings and traffic light should be established to create effective movement of vehicles and safety of pedestrians.

The street ends at the junction of Uhuru Highway. This is point of high collection of people from and to the Uhuru Park. In spite of the fact that it is usually congested, people cross the dual carriage way across pedestrian crossings but with no traffic lights. In order to increase convenience in movement of vehicles and people, a flyover should be established across the highway.

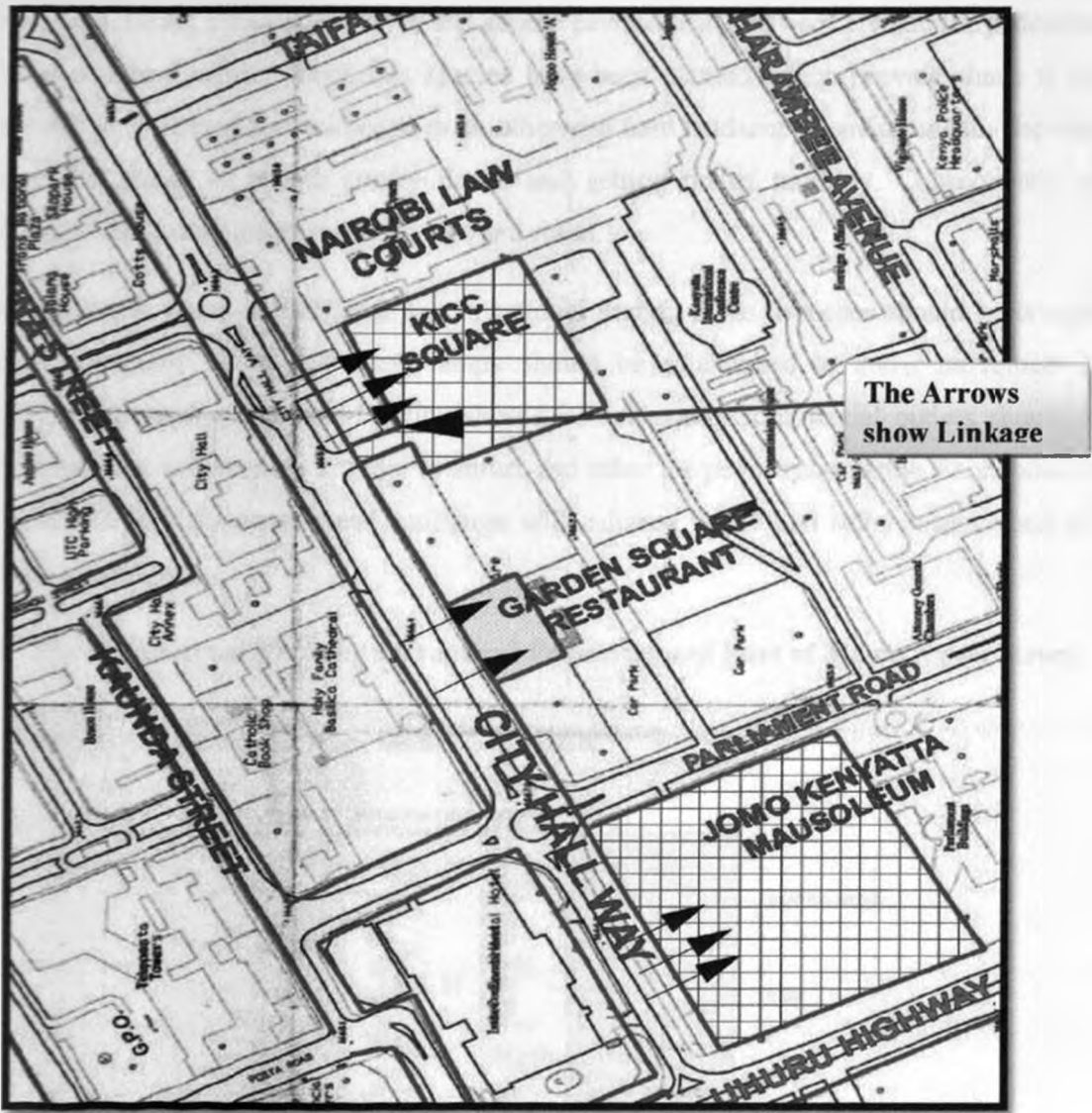
A linkage that is properly monitored in order to increase security should be created between the pedestrian walkway and the KICC Square, the Jomo Kenyatta Statue grounds, Jomo Kenyatta Mausoleum and the Garden Square Restaurant. These are important cultural spaces that would provide awareness on cultural diversities. The KICC Square should have cultural display or a market for display of cultural commodities like Maasai Ornaments and artifacts at least once in a week. This will encourage more interactions for both local and international communities.

- **Lighting**

Security lighting should be provided to help ensure a safe environment. Parking lots alongside should be designed with lighting to provide a minimum of two foot-candles of light at ground level. The public areas and sidewalks should be designed to provide a minimum average of one foot-candle of light at ground level. Exterior lighting should be designed to coordinate with the building architecture and landscaping. Building-mounted fixtures should be compatible with the building facades. Overall lighting levels should be consistent with the character and intensity of existing lighting in the area. Security and parking lot lights, and lighting for signs shall be shielded or otherwise designed to ensure that light is directed downward and not onto adjacent properties. The type of light source used should be consistent throughout a project.

Lamps and light fixtures under carports and/or other partially open parking areas should be designed to prevent glare. All lamps in these areas shall have lenses to diffuse the light.

Fig 5.5: A Plan Layout with Arrows Demonstrating the Linkage of various spaces from the City Hall Way.



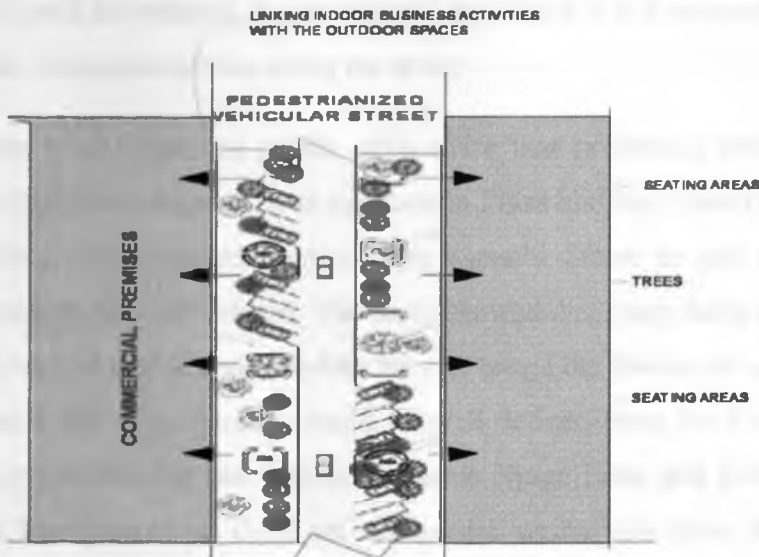
Source: Developed by the Author, 2012

iii) Mama Ngina Street

The City Council of Nairobi has endeavoured in making the street a pedestrian and one way vehicular. This has eased the congestion of vehicles and restricted the public vehicles from using the street. As a result, a more conducive and serene environment has been created for pedestrian use. Trees of *Brachychiton acerifolius* species have been planted which provide shade to the users as well as softening the landscape in an otherwise hard landscaped environment. The trees also have the ability to absorb smoky fumes and getting rid of turbidity. Consequently air pollution and mirage are either reduced or gotten rid of.

The street attracts many people but it has no outdoor seating areas. Benches should be brought and fixed especially under the trees; ramps should be established to allow movement of physically challenged groups and lighting should be enhanced. Commercial outlets should be opened clearly facing the street in order to attract and usher the pedestrians inside. Facilitation of the pedestrians into the commercial buildings will enhance buyer and seller interactions and hence the integration.

Fig 5.6: The Plan Layout Showing a Proposed Pedestrianized Part of Mama Ngina Street



Pedestrianization of the street should be extended towards the City Hall up to the point where the Muindi Mbingu starts. This is to allow more movement of pedestrians from the civic building, the City Hall area and from Kaunda Street which harbours the Holy Family Basilica and its' upcoming Catholic University Campus. Landscaping and lighting should be done appropriately.

#### **iv) Kimathi Street**

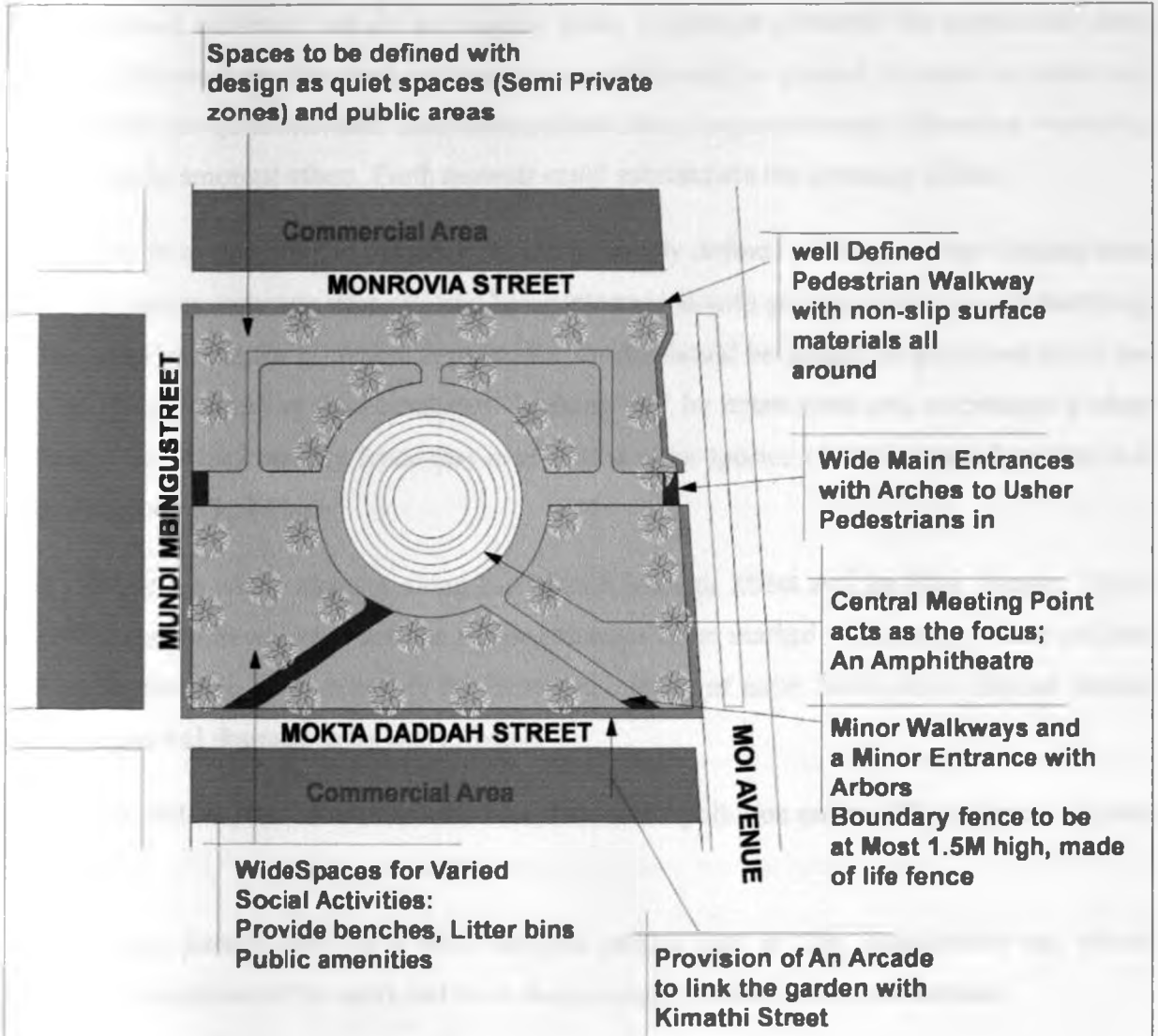
From the literature review, it was found that Kimathi Street was part of Aga Khan Walk. It is currently connected with the Aga Khan Walk through an arcade in the Hilton Hotel building. The entrance from both side are not well articulate as many people crossing to either sides go around the building instead of passing through the arcade. The entrances should be well defined in order to encourage people to pass through it; by so doing the existing commercial activities will be boosted as they will be close to the pedestrians. During the process of buying and selling, more interactions will take place and thus integration and cohesion will be promoted.

The Kimathi Statue stands at the junction of Kimathi and Mama Ngina Street. It is visible from Moi Avenue and all other sides and this state should be augmented. The street is a two way traffic and this makes it become congested quite often especially in the evenings. The street should be pedestrianized to partly conserve the original state. It should be converted into a one way traffic, as similar as Mama Ngina Street and moving towards the Kenyatta Avenue. Public transport vehicles should use the Kenyatta Avenue and then to the Moi Avenue. By so doing traffic congestion will be reduced, more pedestrians created at the expense of the vehicles and this will boost the business activities along the street.

Jeevanjee Garden is an important public open space that previously terminated the Kimathi Street. Currently the street terminates at the Revron Plaza and the Bazaar complex. An arcade through the Revron Plaza should continue the Kimathi Street to join the Biashara Street. However the arcade is not well defined. The study showed that many users of Kimathi Street are not aware there exist an arcade and therefore they go round the Bazaar along the Moi Avenue to join the Biashara Street. The Arcade should be well defined from the Kimathi Street and the Biashara Street to connect the two Streets. Towards Njugu Lane and Moktar Daddah, people move along the Moi Avenue as there are no arcades which join them. An arcade should be

established in the buildings to allow movement of people to Moktar Daddah and to the Jeevanjee Garden.

Fig 5.7: Showing the Proposed Design of the Jeevanjee Gardens Source: Author



Jeevanjee Garden virtually terminates the Kimathi Street and is situated between four streets; the Moktar Daddah and Monrovia Street facing opposite each other, and between the Moi Avenue and the Muindi Mbingu Street facing directly opposite each other. The garden should have a sunken amphitheatre at the middle which will be the centre of interest. This will be used for cultural arts and performances, religious activities as well as social activities. The existing

statues should be relocated at the entrances to be welcoming the garden's guests, as they are small to be at the centre. They do not have the dominance effect which would otherwise be created by the amphitheatre. More seats should be established in a hierarchical manner depending on the available spaces. Other spaces should be left open with no seats in order to allow informal activities that do not require seats. Landscape elements like appropriate trees species with screening effect and aesthetically appealing shall be planted to create less noisy and private zones for quiet activities. Such trees include *Ficus benjamina* trees, *Calistemon viminalis*, *Schinus molle* amongst others. Earth mounds could substantiate the screening effect.

Walk ways from one point to the other should be clearly defined with appropriate finishes such as maza stones, concrete slabs etc. and being intertwined with grass in order to avoid trampling on the grass unnecessarily. Where appropriate, shrubs should be planted to guide and direct the movement and to act as the boundaries. Lighting will be established and to enhance a clear visibility, the main boundary fence that is of *Aberia cafra* species of shrubs should be kept to a height of at most 1.5M high.

There should be wide entrances along the Muindi Mbingu Street and the Moi Avenue. These entrances should have arches and the minor entrances to be marked with arbors. Public utilities will be improved in order to satisfy the increased number of users. Solid waste disposal should be well done and drainage to be well effected.

More trees will be planted to soften the area, reduce the pollution and modify the micro climate of the site.

The resultant product will be a well designed garden that is safe, comfortable and which enhances interactions of the users and in so doing integration and cohesion is created.

v) **Kaunda Street**

The street starts from Wabera Street to Uhuru Highway. From the Muindi Mbingu Street and near the City Hall Way the street is a one way towards the Koinange Street. This status should be maintained. More appropriate tree species should be planted alongside the street to direct the movement. At the junction of Uhuru Highway, a pedestrian walkway should be designed along the highway to join the City Hall Way so that people may use the established flyover to and from the Uhuru Park. This will allow effective movement of pedestrians.

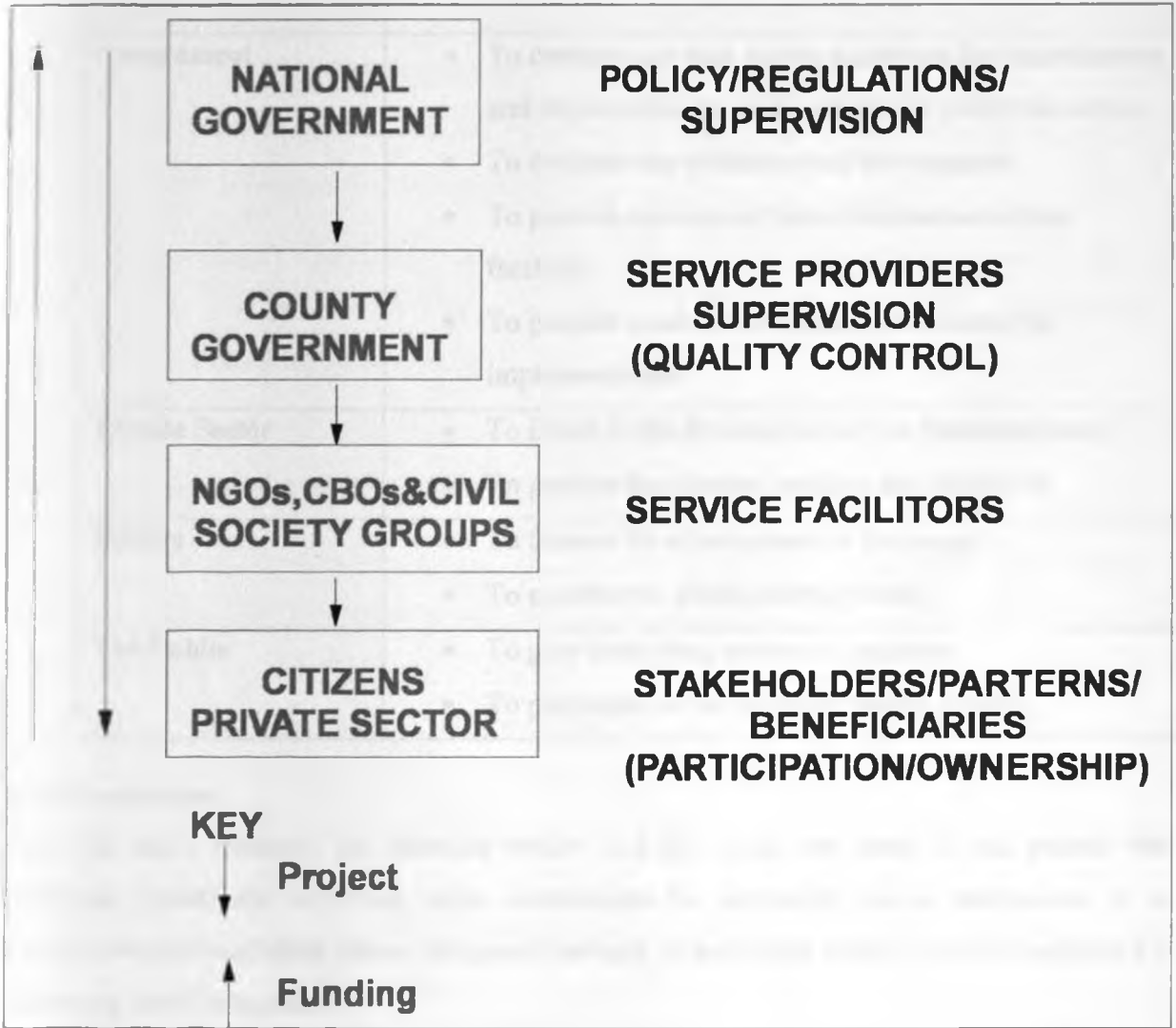
- **Sidewalks**

Sidewalks are necessary to provide access between vehicular areas and pedestrian areas. Handicapped access must be incorporated in all required access pathways. In areas where substantial traffic volumes occur, on certain stretches such as where the main drives connect to the abutting public street, a sidewalk will be necessary to separate pedestrian and vehicular movements. Sidewalks shall be articulated with decorative materials such as brick, colored or textured concrete or accent strips.

### **5.1.3 Institutional Development Strategy**

Development is indeed steered by institutional systems and is a function of their management capacity. The study proposes to strengthen institutional capacity for effective service delivery. There should be measures to build capacities within local institutions, involve the local stakeholders and the public in the decision making, and build partnership in local development institutions. Public awareness will help inform the public on appropriate decision making process. Diversification of financial resources and improving collection and management of revenue is expected to provide the much needed resources for the proposed streets implementation. The figure below presents the proposed framework for institutional development for the integrated network of the pedestrian streets.

**Fig 5.8: Proposed Institutional Set-up**



The stakeholders could be the government itself or its various departments, the private sector, donors and the citizens (public). The table below shows the stakeholders roles in the process of development of the integrated network of Pedestrian Streets.



**Table 5.1: Stakeholders' Roles**

Stakeholder	Role
<b>Government</b>	<ul style="list-style-type: none"> <li>• To develop and give policy guidelines for establishment and implementation of the integrated pedestrian streets</li> <li>• To facilitate the infrastructural development</li> <li>• To provide relevant services and communication facilities</li> <li>• To provide conducive political environment for implementation.</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>• To invest in the development of the integrated street</li> <li>• To provide the relevant services and incentives</li> </ul>
<b>Donors</b>	<ul style="list-style-type: none"> <li>• To finance the development of the project</li> <li>• To monitor the development process</li> </ul>
<b>The Public</b>	<ul style="list-style-type: none"> <li>• To give their ideas, views and opinions</li> <li>• To participate in the decision making process</li> </ul>

**5.1.4 Conclusion:**

From the entire research; the literature review and the actual site study, it has proven that pedestrian spaces are important urban components for promoting social interactions. It is therefore worth concluding that an integrated network of pedestrian streets is a tool necessary for enhancing social integration.

**6.0: Area for Further Research:**

Potential of Pedestrian Spaces as Instruments to Harmonize Urban Land Uses

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Appendix 1.0

Sample Interview Schedule 1 – Users of the Pedestrian Streets

Confidential: The information provided in this survey shall be used for academic purposes only

**People’s Perception of Pedestrian Walk Ways as Recreational Facilities**

**Instructions:** Please respond to all questions:

Section A

1. Please indicate your:
  - a) Age (Years) .....
  - b) Occupation.....
  - c) Position.....
  - d) Nationality.....
  - e) How often you use the pedestrian walk .....

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2. Please respond to the following:

a) List down 3 major places where you prefer spending your time for recreation and socialization, in order of priorities:

- i) .....
- ii) .....
- iii) .....

Others:.....  
.....  
.....  
.....

b) Give reasons for your preference as stated above:

- i) .....
- ii) .....
- iii) .....
- iv) .....
- v).....

3. Outline four reasons as to why you would prefer spending your leisure time in a purely pedestrian street at the expense of another public space:

- i) .....
- ii) .....
- iii) .....
- iv) .....

4. Pedestrian streets should be planned and designed to enhance interactions rather than just to pass by.

a) Tick in the spaces below whether you agree or disagree:

Agree  Disagree

b) In any case, give five reasons for your answer above:

- i) .....
- ii) .....

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- iii) .....
- iv) .....
- v) .....

5) List five facilities which you would prefer to be incorporated in pedestrian spaces in order to enhance social interactions.

- i) .....
- ii) .....
- iii) .....
- iv) .....
- v) .....

6) How do you perceive the linkage/Connectivity of the pedestrian streets and spaces? What do you suggest about the same?

Perceptions: .....

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Suggestions: .....

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Appendix 2.0

Sample Interview Schedule 2 – Users of the Pedestrian Streets

Confidential: The information provided in this survey shall be used for academic purposes only

**Attitude and Opinion Measurement**

**Instructions:** Please respond to all questions:

A) Please indicate your:

- a) Age (Years) .....
- b) Occupation.....
- c) Position.....
- d) Nationality.....
- e) How often you use the pedestrian walk .....



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Certain parameters are important ingredients that change the face of the pedestrian streets, thus increasing their effectiveness in enhancing social interactions that promote social integration and cohesion. You are therefore required to give your opinions and views concerning the following:

## 1. Interactions

How do you rate the social interactions in the pedestrian streets?

- Proper.....
- Fairly good.....
- Poor .....

## 2. Security and Security

How would you rate the security of the users at the Aga Khan walk? What do you suggest to enhance the safety and security of users?

Rating:

- a) Good  
.....
- b) Poor.....

Suggestions:

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**Potential Of Pedestrian Streets As A Tool To Enhance Social Cohesion And Integration: A Case Of Nairobi Central Business District**

**3. Integration Information**

How much spatial integration information do you get from the street facilities and landscape elements in the streets?

Facility / Landscape Element	Information

**4. Adequacy of the Streets and Associated Spaces**

What is your opinion as far as the size of the streets and their associated spaces?

Single Streets	Open Spaces	Integrated Network of Streets

**5. Local Authorities Initiatives:** Do you think the local authorities have endeavored to develop pedestrian streets for social interactions? What do you suggest?

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**Potential Of Pedestrian Streets As A Tool To Enhance Social Cohesion And Integration: A Case Of Nairobi Central Business District**



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Appendix 3.0

Sample Interview Schedule 3 – Experts and Policy Makers

- Expert:.....
- Policy Maker:.....

Confidential: The information provided in this survey shall be used for academic purposes only

**Planning and Design Of The Pedestrian Street**

Instructions: Please respond to all questions:

- 1) Please indicate your:
  - a) Age (Years) .....
  - b) Occupation.....
  - c) Position.....
  - d) Nationality.....
  - e) How often you use the pedestrian walk .....

**Potential Of Pedestrian Streets As A Tool To Enhance Social Cohesion And Integration: A Case Of Nairobi Central Business District**

2) a) Would establishment of integrated system of pedestrian streets enhance social interactions in the **CBD**?

.....  
.....  
.....

B) What are the consequences for the establishment of the same?

Positive

- i) .....
- ii) .....
- iii) .....
- iv) .....
- v) .....

Negative (if any)

- i) .....
- ii) .....
- iii) .....
- iv) .....
- v) .....

C) Revitalization of the pedestrian streets though planning and design should be a collective responsibility; this should not be left in the hands of the city council only. What is your opinion?

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D) What are the consequences of involving other stakeholders and users of the open space in this process?

.....  
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.....

**Potential Of Pedestrian Streets As A Tool To Enhance Social Cohesion And Integration: A Case Of Nairobi Central Business District**

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E1 i) What are your observations as far as the current performance of the street is concerned?

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ii) What are your suggestions to improve its performance?

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Appendix 4.0

Observational Checklist

1. Ownership of the space:.....
2. Size of the Streets:
  - a) Adequacy of the proposed integrated network of pedestrian streets
  - b) Particular streets as shown below:

No.	Street	Space Size	Adequacy
1.	Aga Khan Walk		
2.	City Hall Way		
3.	Kimathi Street		
4.	Mama Ngina Street		
5.	Kaunda Street		

# Potential Of Pedestrian Streets As A Tool To Enhance Social Cohesion And Integration: A Case Of Nairobi Central Business District

## 3. Land-uses

No.	Street	Activities
1.	Aga Khan Walk	
2.	City Hall Way	
3.	Kimathi Street	
4.	Mama Ngina Street	
5.	Kaunda Street	

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**Appendix 5.0: Work Plan showing Time and Activities Schedule**

NO	TASK	DURATION (WEEKS)															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Research Design and Problem Formulation	1	█														
2	Literature Review and Base Maps Acquisition	12	█	█	█	█	█	█	█	█	█	█	█	█	█		
3	Collection of Primary and Secondary Data	4			█	█	█	█									
4	Data Processing and Analysis	1						█									
5	First Draft Preparation	2							█	█							
6	Revisions										█	█					
7	Final Draft	2											█	█			
8	Printing, Binding and Handing Over	1															█



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**Appendix 6.0: Research Budget**

<b>No.</b>	<b>Item</b>	<b>Specifications</b>	<b>Cost (ksh)</b>
1	Personal cost	Researcher's daily expenses	5500
2	Support services	Data input and analysis	5000
3	Field work cost	Transport and other expenses	5000
4	Overheads	Stationery, printing, photocopying, binding etc	8000
5	Research materials	Books, maps, journals and other literature materials	25000
6	Equipment & other facilities	Tapes, camera etc	15.000
7	Contingencies		5000
	<b>Total Budget</b>		<b>68,500</b>