

COMPARATIVE ANALYSIS OF THE SMALL SCALE ECONOMIC ACTIVITIES IN TWO  
NEIGHBOURHOODS OF NAIROBI CITY: KARIOBANGI AND MAKADARA.

BY

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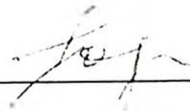
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A Thesis submitted in partial fulfilment of the requirements for the degree of Master of Arts  
in Planning, Department of Urban and Regional Planning of the University of Nairobi,

1992.

**DECLARATION**

This is my original work and to the best of my knowledge it has not been presented for degree in any other university.



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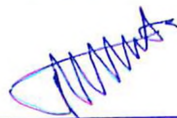
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This thesis has been submitted for examination with my approval as the university supervisor.



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Dr. J. M. KIAMBA.

DEDICATION

This thesis is dedicated to my mum, Magdalyne.

With fond memories on her 20th Anniversary.

And, to all those who will come after me.

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**ABSTRACT**

This study examines the economic performance of the planned and unplanned small scale economic activities in low income neighbourhoods of the City of Nairobi. Most studies on the subject have tended to raise the need for planning of the economic activities. It is assumed that planning for such activities will enhance their performance.

The study adopted three measures of performance; income, output and employment levels. In examining the observation, a comparison case of two areas is done; planned and unplanned small scale manufacturing and repair activities sites both within low income neighbourhoods in Nairobi.

The major findings of the study show that planned activities perform better than the unplanned. However, economic performance is influenced by factors such as initial investments, availability of working space, access to infrastructural services and marketing of the products. Planned activities were significantly provided with the above parameters than the unplanned ones. The findings of this study recommends the integration of the above factors in the planning for the location of the manufacturing and repair activities.

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## CHAPTER ONE

### INTRODUCTION

In the pre-colonial periods, most of Africa was characterised by an economy, which was essentially redistributive, with the basic socio-economic coordination provided by kinship relations. Kinship relations not only governed access to basic factors of production, such as land, labour, technology and capital, but also determined the location of households and enterprises. Therefore, kinship relations restricted mobility only within their ethnic groups.

With colonisation, increased agglomeration of population in urban centres created the necessary conditions for stimulating the growth of entrepreneurship among individuals. The individuals focused on urban centres to provide opportunities for vending of their goods and services (Oyieke 1990).

Urbanization sparked off the rapid growth of small-scale business initially catering for the needs of urban africans. In due course, most of these businesses developed a strong symbiotic relationship with the larger, usually foreign owned businesses, that became their supplier of raw materials. Consequently, these businesses have developed side by side with the large modern businesses in the country. This provides an explanation for the location of small-scale businesses, especially the manufacturing sub-sector, close to major industrial sites. A study by Hans Singer (1972) for The International Labour Organisation (I.L.O.) achieved similar results. Most African governments that had earlier dismissed small scale business activities as an aspect of under-employment focused on these activities with renewed interest for job creation.

The ILO study investigated and analyzed the essential nature of these activities. The study saw the activities as being the 'fledgling economic adaptation' of Africa

and other third world inhabitants to the dictates of the modern capitalist urban economy. The ILO characterised the activities as 'informal' sector in contradiction to the large scale capitalistic enterprises which, belonged to the formal sector of the urban economic activities. The characterisation was based on the fact that 'informal' activities are no-where officially registered or where registered tend to be single proprietor enterprises, employing usually no more than ten individuals, often keep no accounts of transactions, usually low capital intensity and are usually dependent on individual or family rather than institutional management. It then follows that the location of the activities will be determined by the entrepreneur's perceived benefits from a given site (Oyieke 1990). This study seeks to examine whether by planning the working site of such businesses will enhance benefits to the operators.

Since 1972 numerous studies have showed the wide ranging and diverse production activities that can be covered under the informal sector. They extend from such activities as market vending and hawking, to firms of retail trading. They include traditional craft production such as weaving, blacksmith, woodcarving as well as modern artisanal activities such as carpentry, tailoring, shoemaking and furniture-making. They also embrace modern repair radio and television repair as well as small-scale enterprises engaged in various forms of manufacturing such as milling, metal working and garment industry among others.

In theory, while maintaining the informal characteristics, there are two reasons why it may be more appropriate to describe the sector simply as small-scale business. The first reason is the enormous growth in numbers of small scale businesses through the 1980s when the down-turn in the economy of most African countries forced many school leavers and college graduates to operate in this sector. Secondly, as the level of education and skill acquisition of proprietors of the enterprises in the sector rises, there is noticeable quantitative shift in the degree of

technological sophistication and consequently an ever increasing diversity in the range of the activities in the sector. A growing number of proprietors use power driven machinery and keep accounts of their transaction (World Bank, 1988).

What seems to indicate the growing interest in the small scale activities is the increasing investment. The major motives are based on the fact that the activities can contribute to a wide range of development objectives held in common by Governments and donors. These objectives include efficient use of available resources, mobilisation of domestic savings and investment while enhancing incomes to the entrepreneurs.

Greater investment in small-scale enterprises would result in a more efficient use of available resources (both human and physical) and would promote economic growth. Small-scale activities can also contribute positively to other socio-economic objectives of development. For example, this may be through provision of employment and increased domestic savings. Thus, investment opportunities in small scale enterprises may provide an outlet for personal savings at relatively low income levels which would otherwise go unrealised (World Bank, 1988).

Ondiege *et al.* (1990) observed that the fast rate of growth in number of businesses in Kenya and their level of performance is due to the failure of the formal sector. Also, it is due to the failure of the micro-economic policies to stimulate and provide adequate jobs and incomes to the growing population. The activities full potential could be realised for the above expectations to be achieved. Carrying out a comparative analysis of small scale businesses in two areas of low income, the study seeks to examine ways of promoting the performance of such businesses.

## 1.2 RESEARCH PROBLEM.

Kenya, like many other African countries, is faced with the problem of socio-economic development. The reason is the economic structure which is basically characterised by an exchange economy, a narrow production base, a neglected informal sector, environmental degradation and excessive dependence on external factor (Ondiege 1990). The government has been encouraging small-scale activities as an alternative measure to solving some of the above developmental problems. These efforts have been geared towards job creation and enhanced income to cater for the needs of the growing population.

As projected by the Nairobi Urban Study (1973), the informal sector will create up to 100,000 jobs by the year 2000, representing 15% of the total expected employment. With the constraint on the formal sector, the informal sector may have to employ a large share of the Nairobi labour force. The study therefore contends that the small-scale industries in Nairobi have to be encouraged. Since small scale industries are a great source of employment also providing import substitute goods for the low earners in the formal employment. In practice little has been done to promote these activities. Perhaps, the lack of positive action on the part of the government can be attributed to inadequate research on which to build programmes to help the informal sector (House J.W 1977?).

The major problem facing planners in Kenya is how to guide the economy to meet the projected goals of development. Decisions for the location of small-scale industries, like any other private enterprises, are influenced by factors such as natural resources, distance to markets, communications, socio-economic changes as well as consumer habits and demand, all of which are beyond the control of the planner.



Much of the literature on the informal and small scale activities tend to point for the need of planning of these activities. Various studies including Muench (1977) contend that planning practised in Kenya has not considered provision of space for the operation of the small scale activities. Major emphasis has been on land use plans which designate demarcated single use zones such as the residential or commercial zones. The assumption is that small scale activities when provided with a planned site, incorporating supportive infrastructure, they perform better. In this respect, planning for the activities may be a significant prerequisite for improved performance of the small scale manufacturing and repair activities in Nairobi.

According to the NCCK small scale business enterprise report (1987), planning the activities reduces cost of servicing in terms of money, distance and management. It also views it as a way of enabling the operators benefit from an integrated package of infrastructural services which accompany the sites. If this is achieved it will limit the cost of investment, especially land acquisition and infrastructural services to scattered activities.

On the contrary the informal sector flourishes in areas where different activities take place for instance where there is a mix and flux of land-uses. Such studies have tended to advocate for the inclusion of activities in the spatial planning of residential areas. More over, it has been seen that the informal sector has proliferated in most parts of Nairobi despite the intense measures by the N.C.C.K. planners and the administration. Other studies done in Nairobi further reveal that small-scale enterprises are often located in low income residential areas because of availability of market (Okwiri 1988).

In this study examines two different sites were examined; the planned and the unplanned sites in two residential neighbourhoods of the city of Nairobi with hope of confirming the above arguments. The study was also undertaken to establish other factors essential in the efficient operation and subsequent performance of the

activities, on the basis of the operating policy issues.

### **1.3 STUDY OBJECTIVES**

The aim of the study is to analyze the performance of the planned and unplanned small scale manufacturing and repair activities located in two different neighbourhoods. The performance is defined in terms of income generation, employment creation and output.

The study will focus on the following specific objectives;

1. To examine the characteristics and economic performance of the planned and the unplanned small scale manufacturing and repair activities.
2. To analyze the levels of available infrastructure and provision of other factors for the activities that affect the performance of the activities.
3. To determine whether the location of the activities has an effect on their performance in terms of output, income and employment.
4. To suggest policy framework for their improvement.

### **1.4 JUSTIFICATION OF THE CHOICE OF STUDY AREAS.**

The study focuses on two sites in the Eastlands part of Nairobi. The N.C.C.K. small scale industrial site in Makadara has been chosen as the planned site with Kariobangi being the unplanned site. The Makadara (NCCK) site was chosen because the area has infrastructural services and all the informal activities have been assigned in their location. In this area the locating of the activities has been done by The entrepreneurs in Kariobangi area located their activities where undeveloped plots, though without necessary infrastructure, were identified. These two sites are therefore appropriate for comparative study.

## **1.5 THE SCOPE OF THE STUDY.**

The study is focused on the location of the small-scale activities in areas where full potential could be realised. The study pays special reference to the manufacturing and the repair sub-sector, because the two types of small-scale industrial activities have a higher multiplier effect and also have a central role in the economy.

The study specifically compares the performance of the planned activities at the NCKK site in Makadara and the unplanned activities in Kariobangi. The variables used in determining the performance are: output, business incomes, and employment generation. Factors within the neighbourhoods that are bound to affect performance are explored. Also, the characteristics of the operators and the activities including the availability of supportive infrastructural services in sites of operation are examined. Within this framework, the study will suggest viable policy issues that may enhance the productivity of the manufacturing small-scale industrial activities in residential areas of Nairobi.

The study is organised in five chapters. The first chapter introduces the problem of the study. Chapter Two examines the study background and reviews the existing literature on the small scale activities and the study areas. The third chapter analyze and interprets data on business characteristics using qualitative techniques. Chapter four deals with comparison of the economic performance of the activities. Lastly, chapter five discusses the findings of the study covered in chapters three and four.

## **1.6 STUDY HYPOTHESIS**

This study has been guided by one major hypothesis that there is no significant

difference between the mean incomes, production levels and employment levels of the planned and unplanned small scale manufacturing and repair activities. If the null hypothesis is false this will imply that planning for these activities enhances their performance.

## **1.7 STUDY METHODOLOGY.**

### **1.7.1 DATA TYPES AND THE COLLECTION PROCEDURES**

In the study, primary and secondary data is used. Primary data is basically from the field survey conducted by the researcher. In the acquisition of the data, methods used include:

#### **(a). Interviewing .**

This was done by having direct discussions with the officials of the NCKK and the city commission. Such discussions were necessary in acquiring information on the salient aspects of the informal sector in Nairobi.

Also a questionnaire was used to record information from the entrepreneurs in the manufacturing sub-sector. This was facilitated by the help of two research assistants who recorded all the respondents from the operators.

#### **(b). Direct observations.**

This method was employed to verify the response of the information given through interviews. This involved visiting the establishments to acquire first hand information and also appreciate the places of operation. The method enhanced the researcher's understanding of the differences in the two working environment.

Secondary data used in the study was collected through a review of existing literature on the subject. Information was gathered from relevant pamphlets, journals and office reports. Most of the secondary data has been used in first and

second chapters of the study. The importance of the secondary data was to acquire a base upon which the study will be based.

### **1.7.2 SAMPLING PROCEDURES.**

A reconnaissance survey of the informal activities in Kariobangi and NCCk small scale site in Makadara was conducted. This was to establish the population of all informal activities in the areas of study. From the survey, the manufacturing and service sub-sector of the activities was chosen as the target population from which a sample was taken. The two sub-sectors were chosen on the basis that they have a higher multiplier effect.

Stratified sampling was used in the administering of the questionnaires. The method requires that the researcher knows before hand the total population and the proportions required to obtain good results. The method was preferred to pure random sampling of the sample size because it lessens the possibility of bias and one-sidedness. The method involves the following steps:

- a) Decision on the total sample size.
- b) Division of the samples into sub samples using same proportions as the groups in the population.
- C) Addition of the sub samples results together to obtain the figures for the overall sample.

From the selected sample sizes, a systematic sampling method was used in identifying the cases to be interviewed. The method was preferred on basis that it is fast and tends to give an even coverage of the whole selection. Therefore one case out of every two was selected systematically from the target population.

The manufacturing and service sub-sectors selected for study were subdivided into three categories

- (a) The metal works
- (b) The repair works
- (c) The wood works.

In each of the categories, samples were selected using a 50% proportion.

In Kariobangi the total target population size was 83 and in the NCCK small scale site, the total target population was 51. The total per category in each area were as follows:

Area	Activity	Total target population.
Kariobangi	Metalwork	35
''	Repairs/garage	36
''	Woodwork	12
N.C.C.K	Metalwork	21
''	Repairs/garage	14
''	Woodwork	16

In order for the questionnaires to be distributed equally between the two areas, the researcher selected 50 per cent of the sample from each category. Thus the questionnaires were distributed as follows:

### **Kariobangi**

#### Activity

1. Metalwork	$35 \times 0.5 = 17$
2. Repairs	$36 \times 0.5 = 18$
3. Woodwork	<u><math>12 \times 0.5 = 6</math></u>
Total	41

**N.C.C.K.****Activity**

1. Metalwork	$21 \times 0.5 = 10$
2. Repair	$14 \times 0.5 = 7$
3. Woodwork	<u><math>16 \times 0.5 = 8</math></u>
Total	25

Thus as shown above, 41 cases in Kariobangi and 25 cases in NCCk site were selected for study. Overall, the researcher administered 66 questionnaires.

**1.7.3 DATA ANALYSIS AND PRESENTATION.**

After the data was collected, it was coded and analyzed using the Statistical Package for Social Scientist (SPSS). Graphical representation of data was done using Havard Graphics. The details of these methods is provided in the chapters three and four. Means, frequencies, averages and percentages, have been used to present the results of the analysis. Tables, graphs and maps have also been used where they serve to illustrate the presented data.

**1.8 STUDY JUSTIFICATION**

The informal sector in Kenya in all ambiguity of its connotations has come to constitute a major structural feature of our society. However, the ideological controversy and political debate surrounding its development have only obscured comprehension of its character, challenging the capacity of the social sciences to provide a reliable analysis.

This study takes up the challenge by analyzing the performance of the informal sector in a spatial socio- economic context. The study is also an attempt to provide a synthesis of the practical implication of trying to control the sub-sector activities on the basis of their socio- economic performance. The need to evaluate the

performance of small scale and informal activities can be appreciated if we consider the need of information our policy makers require for formulating future policies that will direct the sub-sector. Also, such information is important particularly as it can be used to improve similar activities elsewhere in the country.

For purposes of development planning, it's essential that envisaged potential from manufacturing small-scale enterprises be evaluated frequently in order to assess their relevance and adequacy in terms of meeting development goals. In here the study findings may contribute towards the understanding of means through which planning policy measures can alleviate some bottle necks in the development of small scale manufacturing and repair industry. Such an understanding is necessary if corrective measures are to be taken to achieve a sound self reliant economy particularly in residential areas which should not only be viewed as providing housing for the urban population, but should also be an all round living environment.

Location of such economic activities and their supportive services play an important role in regional development. This is because decisions for locating the activities in a given environment is accompanied by investment of resources that is capable of mobilizing locally available resources for purposes of future development.

It is on the above basis that this study examines the advantages inherent in locating the activities in the two areas of Nairobi. The study therefore is justified because the sector entrepreneurs are bound to enhance the performance of the activities thus contributing to the general development of the economy. The planning authority can equally direct businesses by providing locations in neighbourhoods capable of stimulating growth and further enhancing their performance.

The study examines the categories of manufacturing small scale activities suited



to the different urban neighbourhoods in Nairobi. In essence this will enable the spatial planners pre-determine the locations of the business in the urban areas.

The research hopes to provide information which can be used by the policy makers on informal and small scale activities as a basis for future considerations of the activities. Currently small scale activities forms a central issue in the economic development process of Kenya. This makes the study justifiable and significant, that such a study be undertaken is important in providing a clear understanding of their performance.

## 1.9 STUDY LIMITATIONS

In the study, the concept of small scale has been assumed to be synonymous with informal sector. However, the two words do not necessarily have the same meaning and it may likely raise some conceptual problems. The research has attempted to solve this problems by defining the small scale activities as those which have a labour force of less than 10 people. The design of the questionnaires was therefore biased to favour only such activities regardless of their legal standing.

Due to the existing legal restriction in the operation of such activities, most operators interviewed were suspicious of the research intention. Consequently, some respondents did not cooperate. Some respondents concealed information they regarded important while others tended to exaggerate. This feature was notable, particularly in Kariobangi. The researcher however solved the problem by holding informal discussions with the operators in their working areas. By holding informal talks it was therefore possible to cross check any discrepancies with the recorded information on the questionnaires.

## **CHAPTER TWO**

### **INTRODUCTION.**

This chapter is concerned with providing both the theoretical and spatial framework in which the study has been conceived. It is divided into two sections. The first section provides a theoretical understanding among other scholars on the subject. Therefore definition, role, problems and existing government policies on small scale businesses are examined.

The second section concentrates on mainly the spatial framework within which the activities are discussed. This is important in giving the study a spatial base and therefore making it unique from other studies on the subject.

#### **2.0. THEORETICAL BACKGROUND OF THE STUDY.**

The significance of literature review is to highlight information on the contributions that have been made by other scholars in the area of the research. The subject of informal and small scale enterprises has attracted a lot of interest from national and international development finance and technical agencies as well as from aid programmes. Consequently, a variety of interests explain the diversity in definitions.

#### **2.1. DEFINITIONS OF THE SMALL SCALE AND INFORMAL.**

Page and Steel (1984), in their article on the Economic issues from African Experience, showed that the definition of small scale enterprises must have a functional component. The definition must have implication to the purpose at hand. In the same paper, it was argued that though the attention has been focused on manufacturing sector of production, discussion of small scale enterprises can extend

to all non-agricultural sectors.

By focusing on the manufacturing sub sectors, specifically the woodwork, metal works and repairs, this study is no way disregarding the potential and actual contribution of other informal small scale activities. But because much of interest in SSE stems from concern about problems of industrialisation, the focus of programs and policies to improve are often primarily on the manufacturing sub sector.

In the same paper it is further argued that more specific definitions which have been used in Africa depends on the nature of the program. For instance, a lending program would base its upper limit on size of investment. Where increased National economic participation is an objective, ownership by citizen maybe criterion. But principally, the number of workers is often the basic criterion.

Commenting on the performance, Page and Steel (1984) contend that it is necessary for one to define what activities to be considered. If it is in terms of employment, then it should be productive and not disguised. If additional jobs created do not provide a net additional of output, the programs should then be considered as providing income distribution rather than economic development.

Curtes et al. (1987) asserts that opinions on the merits and potential of small scale or craft sector vary widely. Some believe that the continued existence of small enterprises is mainly the result of market imperfections and the resources used by these enterprises are sub optimally allocated.

The removal of imperfections such as inadequate information in labour or capital markets is expected to raise total output and reduce small scale activity. But where imperfections cannot be affected by policy, the use of resources by small producers necessarily constitutes a second best allocation of resources according to this view.

The other view is that although small producers may be efficient in their use of resources not yet needed by the modern sector, their productivity is not likely to

increase substantially over time, nor is it sensitive to changes in public policy. Steel's (1977) study on small scale employment and production in developing countries, in this case evidence from Ghana, inferred that policy measures have been inadequate in dealing with the growing employment gap. In most cases, the policy has reinforced rather than offset it.

Steel's observation was based on the performance of small scale activities in Ghana at a general level. This study seeks to narrow down to micro-areas where the public policies and programmes can be applied to develop the sector.

In the same book, he defines small scale enterprises as where labour is combined with some fixed capital establishment using labour intensive methods. While the informal sector as; Activities that involve no or little fixed capital or formal business organisation. He further contends that, the sector is under productive in that an additional worker adds little or no value to output but simply share in existing sectoral income.

In the world bank journal on 'Small Enterprises in African development' (1970) it is contended that cut-off points employed by various authors are not consistent and therefore any classification scheme must be somewhat arbitrary. In general however, the paper suggests that firms should be classified as very small (artisanal) if they employ less than ten full-time and between ten and fifteen people. While those varying between the traditional crafts to modern small enterprises are classified as informal.

Morse (1965) while writing on modern small industry for developing countries stated that there are many forms and types of small industries. Regardless of the type however, small factories help the less developed countries achieve their aims of industrialisation and development essentially to achieve higher productivity and thereby improved levels of living.

An important aspect of the problems facing planners is how to guide the

transition from traditional to modern small industry. By examining the current performance of the policies and programmes on the informal activities, this study will go along way in contributing to the understanding of the activities thereby paving way for future improvement.

Alejandro P. (1989) in discussing the question of what is informal economy asserts 'it is a common sense notion whose moving social boundaries cannot be captured by a strict definition without closing the debate prematurely'. The informal economy is not a set of survival activities performed by destitute people on the margins of society. Some activities in the informal sector may derive from the desperate need of a worker to obtain the means of subsistence for his/her family. But a similar motivation could lead to a worker to accept lower wages in the formal sector. It is a specific form of relationships of production while poverty is an attribute linked to the process of distribution. Although most of the individuals engaged in informal economic activities are poor especially in third world countries, the informal economic process cuts across the whole social structure.

The informal economy so described therefore is not an individual condition but a process of income generating characterised by a central feature. That is, being unregulated by institutions of society in a legal or social environment in which similar activities are regulated.

Harper (1984) defines informal sector as those enterprises with one or two persons usually mobile or operating from temporary premises and often outside the law. He further contends that the activities arise in response to opportunities to satisfy urgently felt needs which may be neglected by planners.

This observation concurs with other researchers including Mochache (1985), Njoroge (1985), Macharia (1989) and Sinclair (1978) all who agree to the fact that informal sector activities have been seen as a way out of unemployment problems in Kenya. That the activities have grown in response to the exponentially rising gap

between the formal employment creation and the high growth rate of urban population.

The small-scale sector if improved can reduce the gap regarding employment opportunities in urban areas as well as correct discrepancies in income distribution. Consequently, this sector may help in lowering the cost of living for the majority of the urban population living in poverty.

King (1977) analyzed the informal industries in Kenya and observed that the informal sector is rapidly spreading horizontally throughout the urban centres in the country and has begun to undertake, in its own way, many of the activities that would elsewhere could be done in villages. King further asserted that Kenya's informal sector has "an anybody-can-try anything about it" approach. Diversification however appears to be slow despite the progress the sector has achieved. The bulk of producers make a small range of basic household and farm items from sheet metal, wood and cloths. Competition within these narrow range of products is high however King asserted that specialisation was not an embedement. He attributed this specialised products to the limitations of the consumer demand. King, however failed to differentiate the informal activities of the government establishments like the Kenya Industrial Estates from those activities that do not benefit from the government.

When Njoroge (1985) was looking at the role played by the informal commercial activities in the central area of Nairobi, observed that the informal activities develop spontaneously and are not guided nor stimulated by Kenya's public policy. She asserted that such growth of the informal sector consequently may provide employment opportunities to supplement those from traditional agriculture and the formal sector. The proliferation of the informal activities in the city of Nairobi was attributed to the high demand of its products among workers in the formal industries. Njoroge concluded that as a long-term solution, there is need to

incorporate informal commercial activities in the future lay out of Nairobi's Central Business District plan.

A study on cottage industries in Gikomba by Mochache (1985) traced the evolution of the informal activities in Nairobi. This was a classical case study of an urban informal activity and was to provide information a replan of their outlay. Mochache found that the state of the informal activities in Gikomba area was due to a variety of intertwined forces inherent in the political, socio-economic and legal system. Also, in this study the plight of the informal sector operation was assessed. In general, the study showed that the major stumbling block to the development of the informal sector was due to lack of suitable operation spaces, unfavourable institutional management for the activities and lack of sufficient operating funds.

Mochache's (1990) study on urban informal sector activities in Nairobi was to improve on the existing knowledge of the structure of the urban informal sector activities within the activities of a larger urban system. Mochache noted that the locational behaviour of the activities is a function of both the economy and social relations that optimizes operational costs to maximize the output (returns). Using the bid rent model, he demonstrated how different locational zones provide different profits per activity. He noted that informal activities ignores various constraints to locate in the most viable location in the city. This implies that informal activities do not obey models of industrial location in space unlike the large industries.

Opata (1989) study on small-scale enterprises in secondary towns noted that the informal sector provides goods and services for the poor. The objective of the study was to establish the nature, size and the role of these firms in the urban setting of our society. To this end, he concluded that the small enterprises require relatively smaller fixed capital investment particularly in plants and machinery and do not require the services of highly qualified technical personnel.

In his discussion on issues of small-scale industry in developing countries, Anderson (1982) asserted that the renewed interest in informal sector was due to the concern of widespread unemployment. He cautioned against emphasis on the investment in this sector without keen consideration of the working safety and conditions of the workers.

Gerry (1972) and Killick (1977) contributing to our knowledge the informal sector. They showed that the informal sector has assisted in reducing unemployment in Nairobi's urbanization process and lower the range of incomes between the poor and the rich. Killick (1977) further advocated for the encouragement of small-scale industries in urban areas. However, there is need to differentiate between the assisted-informal enterprises and the non-assisted ones in an effort of understanding the dynamics of the sector.

Onyango (1990) analyzed the growth and performance of small scale enterprises (SSE) in small urban centres, he first observed that the growth of small-scale enterprises is due to the increased demand from the growing population within the towns and their hinterlands. He also attributed this proliferation of SSE to the growth of the town's economy and to that of the country at large. This growth will contribute to an increase in "disposable incomes" over time. Secondly, he observed that the performance of the enterprises is affected notably by lack of institutional credit facilities, lack of management skills and high competition from formal multinational and national companies.

In their discussion of employment in the developing countries, Ndegwa et al. (1985) noted that incomes of most households are from a single sector, either from agricultural activities, informal activities or formal sector salary but not all the three sectors. More often than not, however changing combinations of agricultural income, formal sector wage and informal activities occurs. In this respect, Ndegwa et al. (1985) concurs with Pedersen (1989) that the family structure influences the



ability to accumulate capital and also influences on performance and expansion of such wealth. Most of the studies on SSEs in major towns of Kenya reveals that these businesses are often located in low income residential areas (Ngethe et al. 1982, Okwiri 1988, Orowa 1990). In addition to the above observations, the artisans in the informal sector also prefers to locate their businesses close to their residency in order to maintain their socio-economic set-up.

A study by Okwiri (1988) established that SSE industrial activities located in squatter settlements were originally on the periphery of the towns. Okwiri revealed that no trace of manufacturing sub-sector of SSE is found in high income residential areas which suggests that entrepreneurs locate their businesses depending on the level of demand for their products. The well established enterprises are found in large spaces as their operating sites (Okwiri 1988).

## **2.2. ROLE OF SMALL SCALE AND INFORMAL SECTOR IN ECONOMIC DEVELOPMENT.**

In post independence period of the 1960s policy and research in Africa focused on expansion of large-scale modern industry especially to substitute products imported. Increasing concern for small scale enterprises (SSEs) in 1970s arose from several sources:

- (a) Greater interest in aspects of development other than investment and output growth.
- (b) Dissatisfaction with the dualistic model
- (c) Rising emphasis on a self-reliant approach to development.
- (d) Failure of post-industrial promotional policies to generate efficient and self-sustaining growth.

We can therefore argue that programmes to promote SSEs development can yield substantial benefit if investment is less than could be optimal from an

economic and social point of view.

Page (1984) notes greater investment in SSE would result in a more efficient way of using available resources. He therefore views their promotion as a way of encouraging economic growth at a minimal cost. He further contends, SSEs development can contribute positively to other social-economic objectives of development. For instance in objectives such as provision of employment and increased domestic savings to the operators. This is because investments in SSE would provide an outlet for personal savings at a relatively low income level which would otherwise go unrealized. Page argues out this point by pointing out that initial capital in SSE firms in Africa consistently show that 80% are personal savings only supplemented by gifts or loans from friends.

The World Bank report (1984) showed that development objective for equitable distribution of the income to the population may be fulfilled by increase in numbers and production of SSE since more people earn their living from sector than from larger enterprises. This suggests that the activities are attractive to the majority of the population in African countries. The African countries therefore draws their labour force as well as entrepreneurship from all social stratus its population.

Larger import substitution industries tend to produce primarily for relatively high income consumers. This may create a problem in sustaining growth of demand for the products once imports have been replaced, at the same time satisfying the demand of lower income consumers for this low cost goods and services. Small-scale enterprises offer the possibility both of providing incomes to the lower income population and fulfilling their needs.

The desire to increase the role of nationals in ownerships and management of SSEs has stimulated assistance programmes to promote indigenous entrepreneurs. The shortage of able entrepreneurs and qualified managers has been noted as a major constraint on the development of many economies. A common observation

in most previous studies show that SSEs provide a training ground of workers for large scale enterprises. If small firms help in identifying and training such indigenous entrepreneurs and managers, then they are heavily contributing towards human resource development and national economic growth.

The shortage of managerial and middle level skills has been recognised as an important constraint on the ability to effectively utilise resources in Africa. The SSE therefore offers a possibility of conserving the scarce managerial abilities through these simple organisations of production than in more complex ones. The SSE can complement technical training facilities through the apprenticeship systems which is a relatively more accessible means of transferring skills in Africa. This training system has appealed to Kenya, a country where current and future educational policy lays great emphasis on acquisition of technical skills.

Rasmussen (1992) wrote about the local entrepreneurial milieu enterprise network in a small Zimbabwe town. He noted that small-scale enterprises often do not produce what the large firms do, however they operate with lower distribution costs and they can innovate and create new demands. Also, SSE can use flexible machinery to produce what otherwise required a large machinery outlay and exploit external economies of scale and scope if surrounded by a conducive production environment. These qualities of SSE contrasts large firms that operates on market homogeneity and stable demand which are not always present. The implication here is that small firms can survive in a heterogeneous and rapidly fluctuating market provided the surrounding environment is conducive for production.

Rasmussen also adds that the role of small scale enterprises will vary according to the physical product type and the sector in question. To evaluate this question therefore its fair that sector specific study is conducted. It is the purpose of this study to examine the small-scale enterprises and more specifically the manufacturing and repair activities in Nairobi.

Also, Rasmussen noted that the set, scope and stability of markets provides several limits for small-scale enterprises involvement and these limits must be studied. The efficiency of small-scale enterprises frequently relies on the exploitation of external economies. The existence and the nature of the external production environment must therefore be identified. This study will consider this observation by examining factors that are likely affecting the performance of the small-scale sector.

The small-scale activities can fulfil the above potential role provided they have the following characteristics:

- a) Greater labour intensive
- b) Higher total factor production
- c) Greater concentration among lower income population in terms of income generation and sales of output
- d) Greater share of ownership by citizens
- E) Greater reliance on domestic capital and savings
- f) Lower intensity in managerial and technical skills and
- g) Technology more appropriate and adopted to local resources and conditions.

The importance of informal sector in Kenya's economy as far as employment is concerned cannot be under scored. This was well illustrated in 1990 edition of Kenya economic survey 1986-1989.

Table 1. Small scale enterprises 1986-1989 survey.

	<u>YEARS</u>			
	1986	1987	1988	1989
Modern establishment (rural and urban)				
wage employer	1226.6	1274.1	1326.6	1359
self-employed	35.4	38.1	43.9	44.3
<b>SSE</b>	<u>281.1</u>	<u>312.1</u>	<u>346.2</u>	<u>390.0</u>
<b>Total</b>	<b>1543.1</b>	<b>1624.3</b>	<b>1716.7</b>	<b>1793</b>

From table 1 the total employment contribution of small-scale industries both in rural and urban areas has been growing over the years.

Table 2. Number of persons engaged in activity.

	Year			
Activity	1986	1987	1988	1989
Manufacturing	49899	58424	66096	74441
Construction	37	38	40	49
Transport	47460	5076	5540	6239
Community/ service	40526	47907	55427	62425
Wholesale and retail	185903	200714	219131	246799
<b>Total</b>	<b>281,113</b>	<b>312,159</b>	<b>346234</b>	<b>389953</b>

source: economic survey report 1990.

Table 2 shows the importance of manufacturing sub-sector of the SSE regarding employment provision in Kenya.

### **2.3 PROBLEMS OF SMALL SCALE ENTERPRISES**

While writing on small scale employment and production, Steel (1977) noted a number of constraints facing the activities. He cited the inadequate access to financial capital that is closely tied up with the inability to obtain sufficient raw materials. Also, he contended that small enterprises had no access to imported capital goods, intermediate inputs and spare parts. He attributed the occurrence of this scenario to the foreign trade policies that tend to favour large enterprises. Steele (1977) reckons that because of their ability to exercise substantial political and economic power large enterprises benefit more than SSE. Through direct allocations of import licences to large scale firms, government provides an implicit subsidy which is not enjoyed by the small scale manufacturing firms though they may be engaged in similar activities. Small scale firms are instead subjected to higher prices of imported inputs and greater uncertainty of supply. Even in those economies where direct controls are not employed, the structure of protection strategy frequently discriminates against small firms.

Also, Steel (1977) illustrated subsidy to large firms by using the Kenyan case where small firms producing manufactured goods are not relieved of duty on imported materials to the same scope or magnitude as large firms. This observation concurs with Ondiege,s (1990) findings that the formal sector does pose problems to the informal sector. Some modern firms impose monopolistic position or alternatively sale scarce inputs expensively virtually eliminating informal sector firms making this sector to operate in a "sand-witched level between high and lower output prices". Also, credit institutions notably banks, have generally enacted policies that marginalise the informal entrepreneurs. The regulation concerning

quality, standards, technical specification and procurement are biased against the output of SSE. Even in cases where the institutions have been asked to set a side portions of the loaning capital to small scale enterprises have resulted in slow disbursement. In some instances it has not reached the targeted group.

Oyieke (1990) identified major external constraints to the sector's development in Kenya as being the lack of credit, security of tenure and formal recognition by the internal constraint. These include the lack of management skills and business awareness and extended family obligations which drain their resources.

All these factors, whether singly or in combination may affect the levels of the activities performance. However, small scale enterprises overcome this by resorting to innovative recycling of raw material and using more locally available material in their production process.

#### **2.4 GOVERNMENT POLICIES AND PROGRAMMES**

At independence, industrialization program was geared towards output. The strategy focused on large scale modern enterprises. The assumption was that only large scale enterprises in the formal sector contributed to economic growth. The informal sector was left out of this program to fend for itself, that is however the reason it is called the informal sector.

The efforts of the Kenya Government to recognise the small scale enterprises began by the establishment of an institution through which the enterprise could receive relevant assistance. The establishment of the Kenya Industrial Estates (K.I.E.) in 1967 as a subsidiary of the Industrial and Commercial Development Cooperation (ICDC) was one such assistance programmes. The K.I.E programme aimed at providing services to the local entrepreneurs and support for the overall industrial development.

The role of K.I.E. basically was to:

1. carry out feasibility studies for various small scale industrial projects and
2. provide technical, managerial and financial assistance to the small scale industrial entrepreneurs.

Selected urban centres for the programme included Nairobi, Nakuru and Mombasa. In this first phase of the programme completed in 1968 at a cost of 530,000 Kenya pounds, the K.I.E. in Nairobi consisted of 25 factory units. The programme was targeted to contribute K4 millions to the Kenyan economy. The programme however had some weaknesses in that the required working capital and formal education were too high.

Before the ILO report (1972 on page 226), the policy of the Kenya Government especially towards urban informal sector had contained few elements of positive support and promotion and many of the actions were restrictive and constituted harassment. The release of the ILO report marked a turning point in the official policy toward small scale businesses in Kenya. The description of informal sector became the focal point for much of development plans debate in Kenya. The ILO, description of the activities defined the way the informal sector does business and its characteristics:

- a) Ease of entry
- b) Reliance on family indigenous resources.
- c) Family ownership
- d) the small scale of operation
- e) labour intensive and adapted technology
- f) skills acquired outside the formal school system
- g) Unregulated and competitive market

The ILO report (1972) listed a number of measures that could contribute in improving the working conditions and the economic progress of workers in the



informal sector. Among the workers there was the need to improve easy access to formal credit and improved technology and minimisation of restrictive government action on the development of the sector. Other concerns include the provision of **work sites and suitable location for clusters of informal sector**.

In general, the ILO was concerned about ensuring an improved productivity of the informal sector in Kenya. Also, the ILO advocated for the recognition of the activities in our local plans. While supporting the ILO's concern, the aim of this research is to determine how informal activities can be incorporated into spatial plans. This study may show whether through planning of informal activities or by allowing the activities be located freely may enhance their performance.

The initial response of the government to the ILO as contained in the 1973 Sessional Paper on Employment was accommodating. Since 1973, the commitment to expand the informal sector has continuously been mentioned in all subsequent development plans.

In the 1974-78 Development plan, the policy of the Kenya government emphasised the promotion of the small scale enterprises. The primary goal of the 1979-83 development plan (Gok 1979a) was to improve further the well-being of the people. The highest priority was to increase employment opportunities. It was in this context that an important role was assigned to the development of informal sector including the small scale industrial sector. However, significant support for the smaller units of less than 10 employees is still lacking. This study hopes to fill this gap for purposes of developing a full understanding of the sector regardless of their size.

Over the years the Kenya Government has stress the importance of the informal industries in its developmental policies. The government therefore benefited from the United Nations Industrial Development Organization (UNIDO) consultant group study in 1979 that analyzed the existing of position of the sector,

and suggest a strategy for the development of these industries (Ngethe 1987).

The findings of UNIDO paved way for the sessional paper number 1 of 1986 on Economic Management for Renewed Growth (GoK 1986). The paper stressed that the sector had an important role to play in renewed economic growth of the country. It notes that given the opportunities opened up by the rising rural incomes together with pressure for new jobs exerted by a growing work force that estimated from 7.5 million in 1984 to 14 million by the year 2000, the small scale enterprise would have to expand. This calls for improved performance of the physical and the policy working environment. There is need therefore to explore best alternative ways of promoting manufacturing and the repair sectors of small scale activities particularly in Nairobi where the labour force is much in excess. The activities offer possible solution to employment problems in Nairobi because of their higher multiplier effects. This study takes the challenge to show what solutions the sector can provide to the Kenyan unemployment problem.

The sessional paper number 1 was followed by the commissioning of 'Nyayo' sheds at Gikomba area as a planned site provided with basic facilities. It was the first attempt by the government to provide planned and serviced site to the small-scale industry. Using the NCCk small scale site, this study attempts to assess the performance of planned and serviced sites in contrast to the unplanned and unserviced ones.

The Government of Kenya development plan for 1989-93 addressed the growth of the small-scale sector. The plan further projects that the bulk of urban employment will come from small scale manufacturing, marketing, repairs, and service activities. Thus implying the emphasis of the importance of the activities in the overall economic development of the country.

In summary, a survey of the policy points out that the government has initiated policies that comprises a wide area of the small scale sector development.

The policies reveals that the government's effort have been promising and innovative. There is need however to consider performance of the sector not innovation alone. The level of implementation of the said strategies however remains questionable.

## 2.5 OPERATIONAL DEFINITIONS.

### 1. Small-scale industries.

This term has been used in several ways by various countries and economists. The main guiding factor however has been the level of the country's economic development. Generally, they do include a group of industrial activities categorised as manufacturing and services. The Kenya Government defined the small-scale industrial activities as industrial units which employ between 1-50 people. In this study however, the small-scale sector has been defined as those enterprises engaged in manufacturing and repair which employ less than 10.

### 2. Planned small scale activities.

Planning as defined by Abercrombie involves ‘‘arrangements of parts of the city so that they form one satisfactory mechanism, each part performing its function in the best way’. In this respect, planning requires that planners know the suitability of land for development or its liability. In the same manner, the planned small-scale activities in this study are those that have been located in a site which has been identified and the supportive infrastructural services provided. In which case such activities can be said to be regulated or controlled.

In contrast to planned activities, the unplanned activities in this study refers to those activities located in areas where they have not been planned. In this case they locate themselves without the guidance or control of the planner. Such

activities are not therefore provided by supportive infrastructural services. Where unplanned activities are located they depend on services meant for the resident population.

#### 4. Manufacturing

Ogendo (1972) defined manufacturing as the process in which any of the primary and secondary raw materials of organic and inorganic origins are converted into forms that are more useful to man. During such process, the materials are assembled in establishments where it is upgraded into a more valuable product for consumption. Similarly in this study, manufacturing small scale activities are those engaged in transformation of secondary raw materials like timber, steel metal into new products.

#### 5. Repairs

Repairs refers to services rendered to products already used. The process is useful in ensuring the re-use of the manufactured products that otherwise are ruined and could be useless.

#### 6. Performance

In this study, performance refers to the expansion and growth in business output, incomes to the operators, and employment levels.

#### 7. Household size

This is the number of people staying in the same housing unit.

#### 8. Multiplier effect.

In this study, the multiplier effect concept is used to mean the initial

investment in the enterprises will not only increase its value but generate other multiple of it.

## **2.6 THE STUDY AREA.**

### **2.6.1 A BACKGROUND TO NAIROBI CITY.**

Nairobi has experienced a rapid expansion both in population and physical extension. The physical area of Nairobi expanded from 3.84 km<sup>2</sup> in 1910 to 25 km<sup>2</sup> in 1919. By 1948, the city boundary covered an area of 83 km<sup>2</sup>. In 1963, the boundary was extended to 680 km<sup>2</sup> which is currently still the official extension of the city. The rapid boundary expansion can be explained by the high rate of urbanization that has been attributed to increased immigration and high natural population increase.

From 1972-1979, a total of 1580 hectares of land was designated by the Nairobi city council (NCC) for residence. The designation was as follows:

- (i) 150 hectares high density for the low income housing
- (ii) 200 hectares for medium density for middle income housing
- (iii) 1230 hectares for low density high income housing.

With the expansion of the boundaries, the population also increased to 350,000 people. Since Kenya's independence, the population has increased at a rapid rate of 7-9 percent per annum. By 1972 the population numbered 650,000 and in 1979 it was 835,000. The current growth rate has been estimated at 5-7% per annum with a population of about 1.5 million people. The observed drop in the growth rate can be attributed to the popularised population growth measures through family growth control.

A notably observation however is the growth of the city itself, it has bypassed the growth of the necessary infrastructure. Immigrations to the city, lack of

sufficient employment opportunities for the majority has resulted in spontaneous development of informal and small scale activities. This has largely been as a result of the decline in wage employment opportunities in Nairobi. Self-employment has been growing at a faster rate. For instance, in 1980-1984 period, self-employment grew at a rate of 27.7% inspite of constraints from the administration and the NCC officials. In the same period it accounted for nearly 15% of the total employment. Current estimates put the figure at between 40-60% (1989/1993 development plan, Government of Kenya (GoK)).

Because of the shortages in formal employment and the growing labour force in the city, there is need for studies to examine possible alternative sources of employment. Such information will provide suggestions to policy makers within the city of Nairobi.

## **2.6.2 HISTORICAL PERSPECTIVE OF SMALL SCALE BUSINESSES IN NAIROBI.**

The colonial rule established dual economies in Kenya. The monetary economy was primarily for servicing the Crown establishment and its servants. This included, the white settlers, the colonial administrative machinery and the indian businesses who provided the necessary goods and services to keep the economy running. Parallel to the monetary economy was the natives economy which was initially a barter economy but later adapted money as media of exchange (Mochache, 1985).

Natives were coerced into working either in plantations (white farms) or in other machineries of colonization such as railways, and public services. The individuals so recruited into forced labour agreements performed manual jobs. Only a few of this work force was permitted to develop to senior management position.

Against this background, demand for goods and services both effective and otherwise continued to come mainly from the white settlers, white colonial administration personnel and the asian shopkeepers. The coming of the natives to urban or farm settlement situations did not create any demand for manufactured goods and sophisticated services.

Side by side with the formal business sector which supplied the needs of the establishment and its settlers, there were established small scale enterprises which manufactured and supplied goods and services to the simple unsophisticated but growing demand from the African population in urban and rural areas.

The intervening period that was characterised by the Mau Mau war of independence greatly accelerated changes in Kenya and Nairobi in particular. At independence there was generally greater awareness of monetary economy among the africans. Many more Africans held positions and jobs with monetary incomes. Cash crop farming was opened up for Africans resulting in considerable flow of disposable incomes.

The economic policy of Kenyanization of the Economy led to influx of people from the rural areas into urban areas with a hope of getting employment. More school leavers have been carried out as a result of school facilities expansion policies. However there was disparity between demand for jobs and the ability of the public sector to absorb that demand.

The spirit of struggle created during the Mau Mau uprising in pre-independence period was the driving force to those who did not get formal employment to embark on informal self-employment. Their enterprising natures identified discrepancies in demand and supply for goods and services which they ventured to meet. The realisation can be said to have set in motion the start of small scale activities in Nairobi's African neighbourhoods.

The observations from this is that the colonial era set up the base upon which small scale activities have built on in Kenya. This was particularly so through their racial discrimination which led the Africans to be treated as underdogs for odd jobs. They were also restricted from engaging in any sort of commercial activities. Forced labour was however not liked by Africans and was one of the major reasons for starting of small scale activities.

Rural to urban migrations has been on increase and Nairobi has experienced the largest share of this increase. The reason has been that for a long time Nairobi has remained a primate city in Kenya. Most of the economic activities concentrated in Nairobi and this has been the main pull to the immigrants. Low income neighbourhoods like Makadara and Kariobangi have been the major recipients of the immigrants. These population then resort to small scale activities as entrance to the urban economy.

In conclusion, a number of economic and political issues have intermingled to result in the invasion of small scale activities in Nairobi. Presently, there is a large number of small scale activities in Nairobi spread pervasively in various parts of the city. Particularly, the Eastlands has been referred to as the 'hub' of these activities. Areas of intense concentration include Gikomba, Kamukunji zone, Soko-Mjinga, Kariobangi including Dandora area.

The study areas chosen fall within Kasarani and Makadara divisions in the broad eastland zone of Nairobi (Figure 1). The NCCK site is located in the broad Gikomba-Kamukunji zone. Kariobangi is within the Soko-Mjinga Kariobangi zone (Figure 2). The two selected areas are of intensive activities that includes carpentry work, steel and metal works, garage repair and motor vehicle body building works. In the Gikomba-Kamukunji zone, attempts have been made to plan for the activities in the region but the most conspicuous planned activities are to be found in the NCCK small scale industrial site.



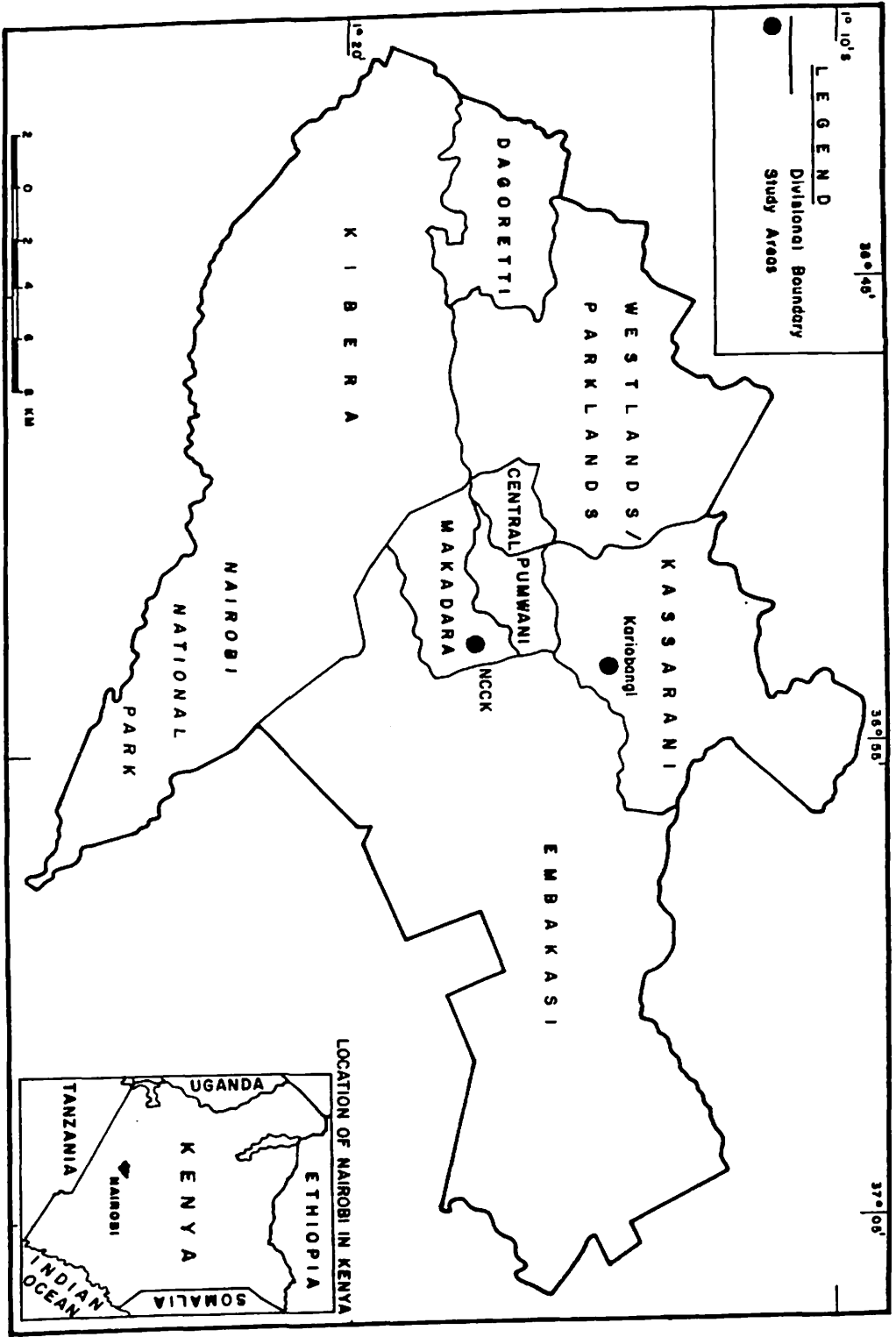


Fig. 1 : LOCATION OF SMALL SCALE STUDY ZONES IN NAIROBI

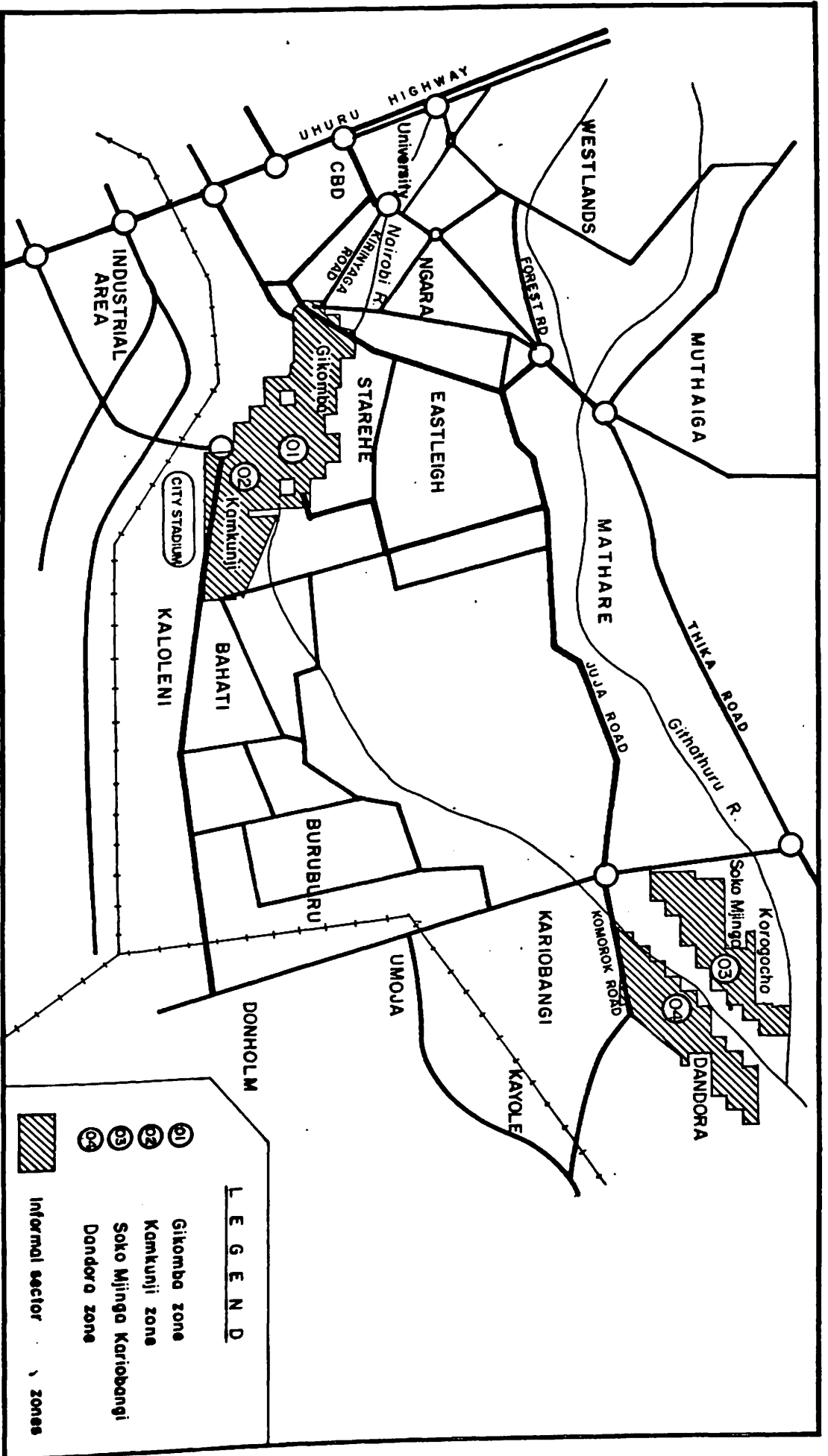


Fig. 1 : LOCATION OF SMALL SCALE MANUFACTURING AND REPAIR SECTION ZONES IN NAIROBI

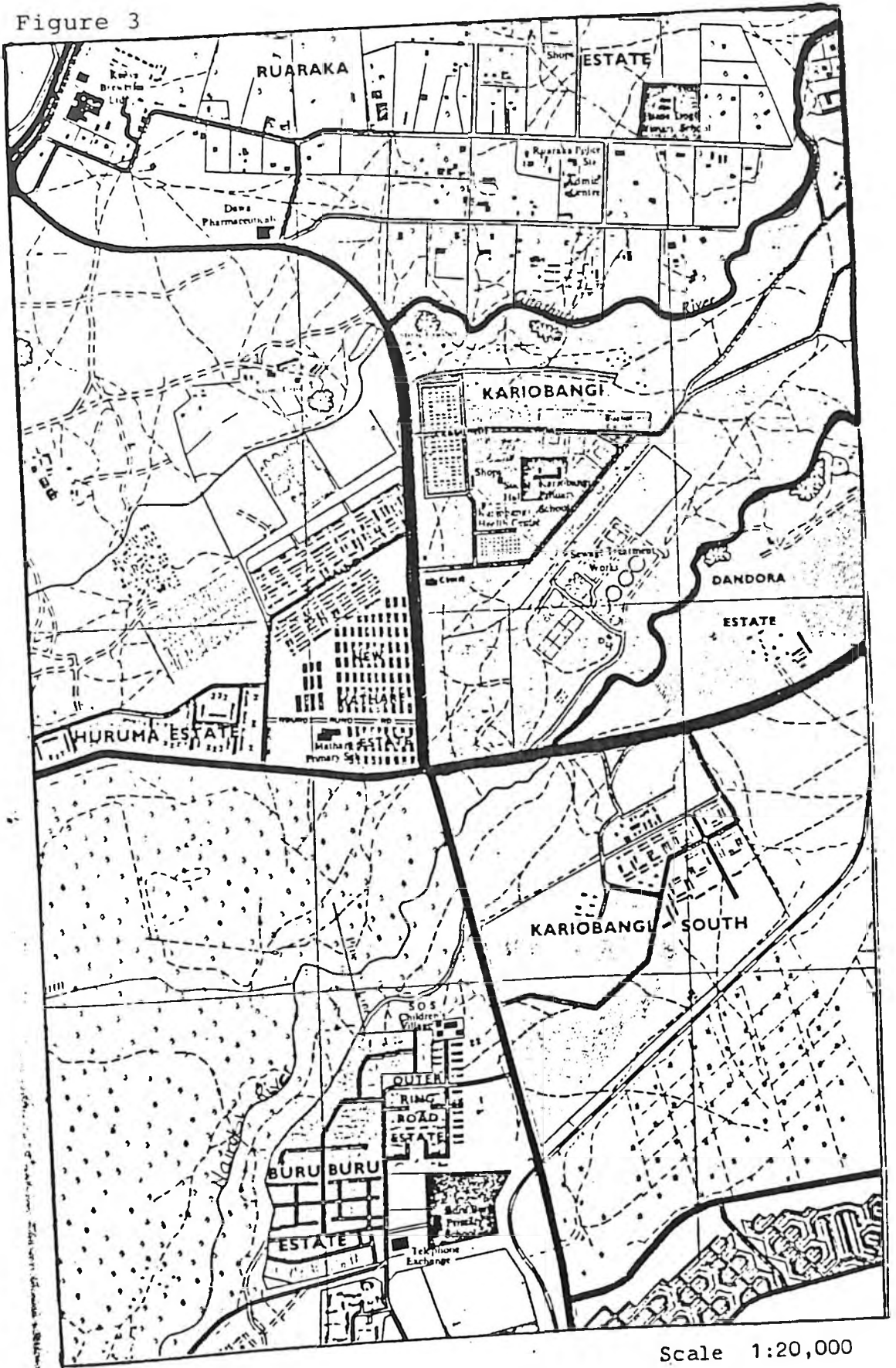
### 2.6.3 KARIOBANGI

Kariobangi with its unique characteristics like land tenure, property (housing) ownership and standard of housing constitutes one of the most densely populated low income residential settlements in Nairobi. The area has many unplanned developments. In a study on the role of the social networks and the state in the urban informal sector by Macharia (1989) reported that kariobangi represents those areas which in colonial days were predominantly African. Segregation of the city residential areas was by race. The area is one of those eastlands areas where the Africans managed to get urban houses. These were the areas where the jobless African started informal sector activities initially as a response to the unemployment problems which had not been addressed by the colonial urban policy. However, the historical trend has continued and today segregation is by income levels. The area is also with some of the most highly concentrated small scale activities.

Kariobangi is situated North-East of Nairobi City at a distance of 10 kilometres from the city centre. It is situated 8 kilometres from the Nairobi Industrial area. The two areas are the main employment areas. The study area lies between Nairobi river and Kitathuri river (Figure 3). The area is bordered to the north by Ruaraka, Dandora to the south and Mathare estate to the west. Apart from Ruaraka and kasarani estates that are medium income, Kariobangi is surrounding by low income estates.

The focus of this study is on Kariobangi North, however it will simply be referred to as Kariobangi due to the official documentation in the 1979 survey records. In the study area the commercial activities are scattered over the residential areas. The residential housing covers an area of about 120 hectares. Some of the residential houses have been converted into informal commercial and manufacturing activities like tailoring, woodwork, retailing, metal fabrication and ecetera ecetera. This study aims at examining these activities in the area.

Figure 3



Scale 1:20,000

**KEY**



Study Area



Source: Shihembetse (1985)

#### 2.6.4 THE NATIONAL COUNCIL OF CHURCHES OF KENYA (NCCCK) SITE IN MAKADARA.

The NCCCK small scale industrial site is located about 8 kilometers away from the city centre. The site measures approximately 7.5 acres. The NCCCK provides stalls, at a set fee, to small scale entrepreneurs with manufacturing and service activities at a subsidized price. The Dutch International Church Organisation donated Ksh 6 million as initial capital in the construction of the existing 107 sheds and offices on the site. The sheds were for the purpose of providing working places for small scale entrepreneurs in Nairobi. The site is easily accessible to Eastlands residents.

The small scale business scheme initiated by the NCCCK in 1975 had the following objectives.

1. To assist disadvantaged poor people to identify and develop business for self-reliance.
2. Assist in credit acquisition as well as financial aids to members .
3. To create an environment for basic business management training.

The NCCCK is a coalition of all the major protestant churches in the country. Moreover, NCCCK is the largest and the most diversified non-governmental organization (NGO) in Kenya. The NCCCK performs both ecclesiastical and developmental functions, with the latter being most widespread. The NCCCK offers a broad range of technical managerial, planning and training services to development projects and service programs of its own.

Among other programs, the Urban Community Improvement Program (UCIP) is one of the largest and most important of the a NCCCK programs. The small scale business site along Jogoo-Rabai roads in the Gikomba-Kamukunji zone, forms a part of the UCIP. For ease of management and administration, the NCCCK has an office on the site. The maintenance of the site has been delegated to Kinyua-

Koech limited company. On the site, the NCKK has ensured that the activities have access to electricity. The cost of installing individual stalls however remains the responsibility of the operators. The site also has a sanitary block, water and a well maintained drainage line.

The criteria for allocation of stalls to potential entrepreneurs was based on whether the applicant had skills in a given field and whether the applicant possessed his own tools, also the applicant was unemployed. At the time of this research most of the operators were not the original allottees. The site has intensive activities which include posho mills, metal fabrication, carpentry, garage services and welders (Figure 4). Presently, the NCKK has no formal relationship with the operators as the running of the site has been delegated to Kinyua-Koech limited company.

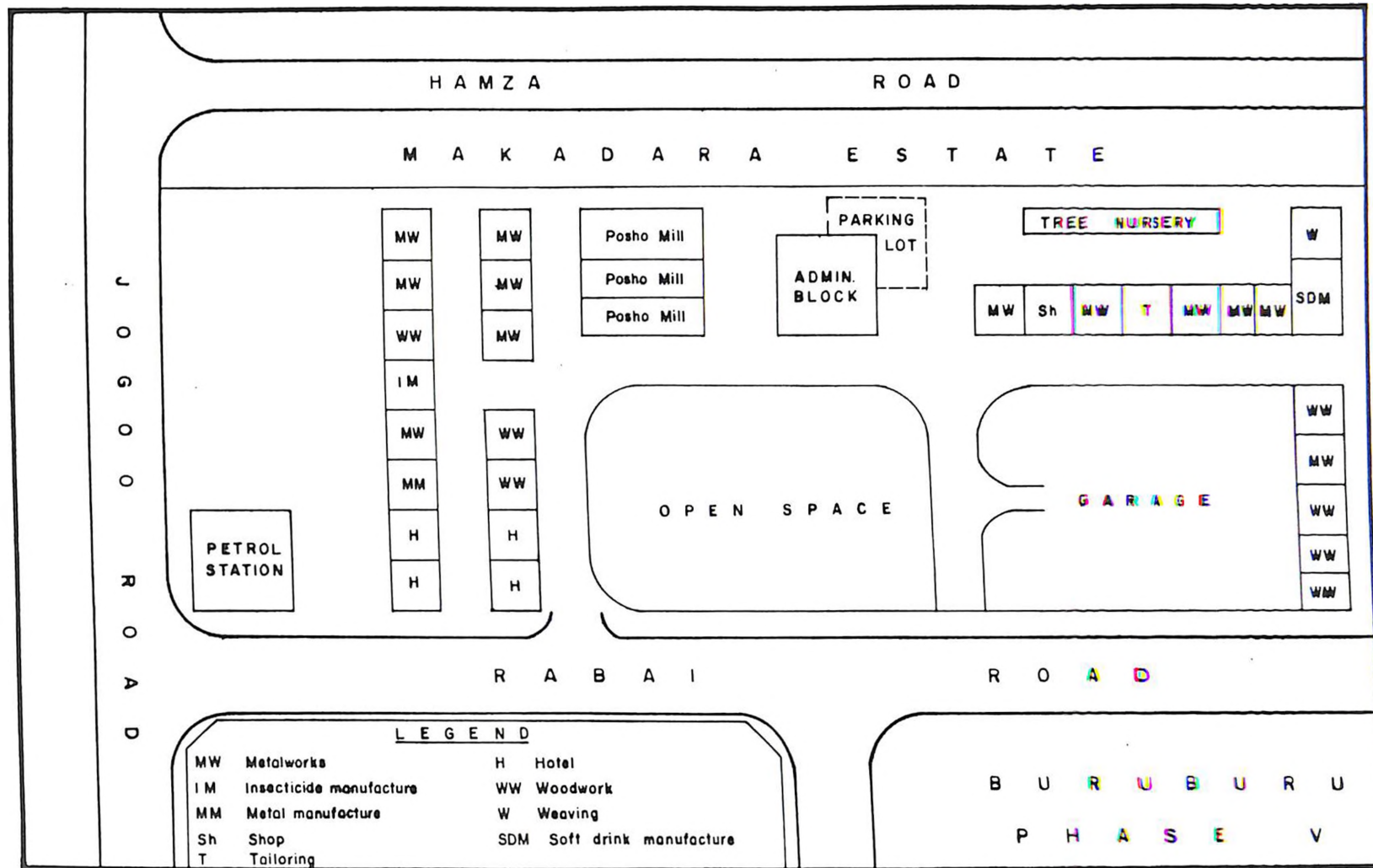


Fig. 4 : SKETCH MAP OF NCCK SMALL SCALE INDUSTRIAL SITE

## SUMMARY.

From the review, it is shown that the definition of the concept of small scale businesses is subjective. Most writers on the subject tend to agree that the activities locate in low income residential neighbourhoods where the markets for their products exists. The implication is that markets are crucial for the development of the activities. This provides a pointer to policy makers that proximity to markets and consumers are the elements of strength in the small scale industrial sector.

The role of the small scale activities can be explained within the context of provision of the basic goods at affordable prices, development of technology and provision of training grounds for large scale enterprises and contribution of more equitable distribution of national income through job creation.

The second section has provided the physical and economic conditions within which the activities operate. The activities in Kariobangi are shown to have grown out of personal needs by the local community in the region. They located themselves without the guidance of the planner. While the activities at the NCKK have been guided in their location, hence they are planned.



## CHAPTER THREE

### 3.0 BUSINESSES SOCIO-ECONOMIC PROFILE.

#### INTRODUCTION.

This chapter is concerned with the examination of the activities characteristics in the two areas of study. First, the spatial setting is examined, followed by the characteristics pertaining to the composition of the participants. The chapter ends by examining performance. The intention is to understand the socio-economic setting within which the activities operate.

#### 3.1 SPACE

Working site for small scale activities is an important element for efficiency in operation. The availability of space will determine the size as well as the activities concentration. Space occupied by the businesses (in square meters) was sought. The mean space occupied by the businesses measured  $154.9 \text{ m}^2$ . The minimum and maximum space areas were  $4 \text{ M}^2$  and  $1000 \text{ M}^2$ , respectively. Our observation that the activities are operating on such small spaces concurs with other studies which shows that the space required by the activities is low (Opata 1989).

At Kariobangi the mean space area occupied by the activities was  $74 \text{ M}^2$ . The largest space area was  $400 \text{ M}^2$  and the smallest was  $4 \text{ M}^2$ . Therefore, activities operating in kariobangi occupied smaller areas than the overall mean area.

At the NCKK, mean space area was  $292.7 \text{ M}^2$  while the largest space area was  $1000 \text{ M}^2$  and the smallest area observed was  $70 \text{ M}^2$ . From this observation, it can be concluded that the planned activities at the NCKK do operate in larger spaces compared to those at Kariobangi. This also ties up with the nature of the

activities operated in the two sites. The availability of comparably larger space can be said to account for the domination of the manufacturing sector activities at the NCKK than at Kariobangi due to their large space requirement.

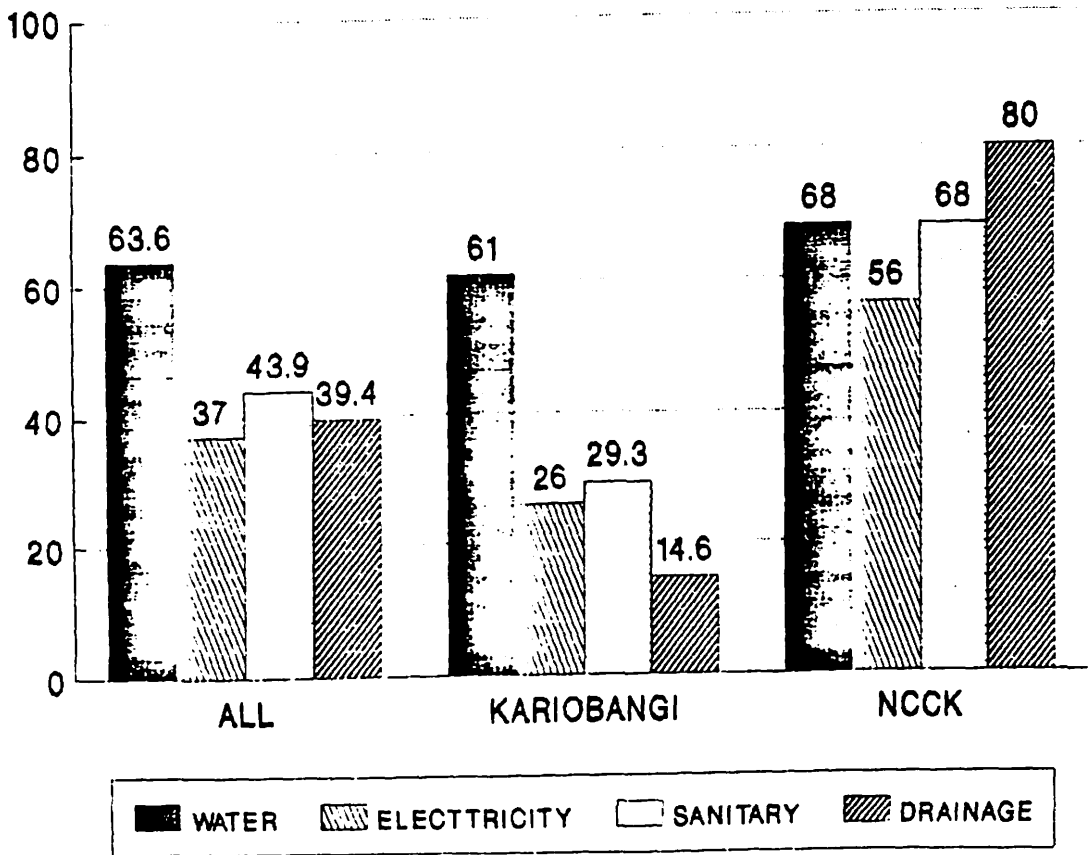
Space as a factor can be regarded as a constraint in Kariobangi when we consider the tenureship. In establishing the working site ownership it was found out that 78 percent of the activities had rented from the landlords of the existing dwelling units in the neighbourhood while 22 percent operated on open spaces within the neighbourhood. On the other hand, at the NCKK 100 percent of the activities had been allocated sites by the NCKK.

The emerging picture is that the activities in Kariobangi are bound to raise land-use conflict situation. This leads us to suggest the need for the activities to be provided for with space. Raw materials for the sub-sectors is basically from the surrounding industrial sites along komorock road. The NCKK operators also relies on the Nairobi industrial area.

### **3.2 LEVEL OF INFRASTRUCTURE PROVISION.**

Infrastructural services have been regarded as necessary ingredient in the promotion of small scale industrial activities. The assumption here in is that the presence of the services do offer wide chances of improving productivity. Such services like electricity and water are pertinent to the metalwork as well as repair services in particular. But some others like sanitary and sewage services are essential in maintaining the health standards and the aesthetics of the working environment. In all these cases the role of infrastructure can not be undermined. As observed by Mochache (1990) where the activities are not provided with services, they have been considered an eye-sore.

## LEVEL OF INFRASTRUCTURE PROVISION FREQUENCIES



FIELD SURVEY, 1991

Figure 5

As shown by Fig 5, 63.6% had water on site, with only 36.4 percent not having water. Thirty-seven percent had electricity and 62.1 percent were lacking. Forty-three percent had sanitary services and 56 percent lacked the services. Only 39.4 percent of the establishments were served with drainage system while 60 percent operated without.

NCKK site appeared well served with infrastructure facilities than activities located in Kariobangi. Only 26.8 percent of the establishments in Kariobangi had electricity compared to 56 percent in NCKK. Electricity is particularly important in the metal works. The lower levels of provision in Kariobangi seems to explain why there is few such Small scale activities in the area.

Similarly, there was a noted low percentage of drainage and sanitary facilities in Kariobangi as compared to the NCKK. The implication herein that activities do not have adequate conventional means of disposing off their wastes. The consequence is the possibility of degeneration in the working environment. But due to the high expenses involved in the supply of the services, the individual operators in Kariobangi have not been able to afford the services. This is in contrast to NCKK where the activities have been provided with the services. The unplanned activities have tended to rely on supplies meant for the resident population in Kariobangi.

### **3.3 BUSINESSES DISTRIBUTION.**

In the study, the manufacturing and service sub-sectors are subdivided into; woodwork, metalwork and repair works. From the survey, the metalwork and repair works each accounted for 34.8 percent. The woodwork accounted for 30.3 percent. The general indication is that repair and metalwork is spatially distributed and have equal attractiveness to the operating population regardless of whether the activities are planned or unplanned. A look at the sectors distribution in the two areas reveals the following:

TABLE 3 DISTRIBUTION OF THE ACTIVITIES IN THE STUDY AREAS

ACTIVITY	ALL	KARIOBANGI	NCKK
WOODWORK	30.3%	29.3%	32.0%
REPAIR	34.8%	41.5%	24.0%
METALWORK	34.8%	29.3%	44.0%
TOTAL %	100%	100%	100%

SOURCE: Field survey, 1991

Table 3 shows that in Kariobangi woodwork and metalwork are equally distributed and fall below the repair work enterprises in number. While at the NCKK, metalwork seems to be prominent followed by the wood works and last in the line are the repair works. The discrepancies therefore distorts the general picture provided.

The differences in the neighbourhoods income levels may account for differences in the distribution of the activities. In Kariobangi, repair activities like shoe-making, watch repairs and etc. seems to dominate. Such activities are known to offer and allow the residents of such low income neighbourhood to re-use their wares at a lower cost. The activities are therefore more attractive to the neighbourhood than to those around the NCKK. Tastes will equally differ, therefore accounting for the small (24) percent of the category in the region. The presence of more repair works in Kariobangi can also be attributed to the inadequacy of working space. Operator of the activities in the region may be restrained from engaging in activities that require more space.

The above scenario throws some light on the planners wishing to provide the activities. The repair works are more attractive to low income residential neighbourhoods so long as space is available. This will be in contrast to metal works

which require other additional infrastructural services like electricity.

The difference in businesses composition between the two regions is also reflected in the type of working sites. A survey of all the regions revealed that 53.8 percent of all cases operated under a permanent structure. Twenty percent of the enterprises were in temporary structures, and 24.6 percent were under open air. The definitions of a permanent structure was based on whether the structure was built of tin-roof, concrete wall and cement. On the other hand temporary structure refers to poll sheds meant to provide a shade.

TABLE 4. BUILDING MATERIAL OF THE WORK SITES.

OPERATION SITE	ALL	KARIOBANGI	NCCK
PERMANENT	53.8%	26.8%	96.0%
TEMPORARY	20.0%	31.7%	0%
OPEN AIR	24.6%	39.0%	4.0%
OTHERS	1.5%	2.4%	0%
TOTAL %	100%	100%	100%

SOURCE: field survey, 1991

In Kariobangi, only 26.8 percent operate under a permanent structure compared to 96.0 percent at the NCCK. In Kariobangi most activities were noted to operate under open air and in temporary structures. The poor operational sites implies the activities are prone to weather disturbances such that the operators might be forced to stop working during poor weather conditions. This in itself might affect performance since work hours might be lost during adverse weather conditions.

The temporary and open air operating sites have been encouraged by the absence of working space for the activities in Kariobangi. This concurs with Muench (1977) observation that urban planning as practised in Kenya does not consider the spatial needs of the small scale activities. Most operators therefore merely rent the sites from landlords who usually do not provide the necessary supportive facilities.

### 3.4 BUSINESSES AGE.

TABLE 5. FREQUENCIES OF ACTIVITIES PER AGE GROUP

BUSINESS AGE (YRS)	ALL	KARIOBANGI	NCKK
0-2	33.3%	43.9%	16.0%
3-5	25.8%	22.0%	32.0%
6-8	30.3%	17.1%	52.0%
9-11	10.6%	17.1%	0%

source: field survey 1991.

As observed from the table 5 above, most of the businesses activities are young. They fall in the youngest age group of less than 2 years. At the NCKK, only 16.0 percent of the businesses falls within this age group. The highest proportion have between 6 and 8 years in operation (52.0 percent). The site has been operating since 1983. This may help to explain why there are no activities in the oldest age group.

In Kariobangi, most of the businesses were aged 0-2 years (43.9 percent) but there are others which fall within the oldest age group. The indication seems to be that activities in Kariobangi have been coming up faster than the same can be said for NCKK. The observation further indicates that Kariobangi has a longer history

of the activities than NCKK. The presence of more recent establishments in the region suggests that being a low income neighbourhood, there is a need for the residents to establish other sources of incomes to subsidise their earnings.

The age of an enterprise is bound to affect its current levels of production if it affects the level of capital and demand. Long established businesses might have accumulated large stocks of capital, won large share of the markets and established a steady supply of inputs. Conversely, young businesses might be at a disadvantage with regard to these factors. The age of the businesses is therefore expected to have a positive effect on the businesses incomes.

### 3.5 GENDER

From the survey, 54 out of 66 respondents were male. The female numbered only 12. This accounted for 81.8 percent and 18.2 percent respectfully. The difference was more pronounced between the two study areas. In Kariobangi, male respondents numbered 37 (90.2 percent) and the female were only 4 (9.8 percent). At the NCKK, the male respondents numbered 17 (68 percent) and the female were 8(32 percent). The difference is illustrated in table 6.

**Table 6. GENDER COMPOSITION AMONG THE OPERATORS IN THE STUDY AREAS**

SEX	ALL AREAS	KARIOBANGI	NCKK
MALE	81.8%	90.2%	68.0%
FEMALE	18.2%	9.2%	32.0%
TOTAL	100%	100%	100%

SOURCE:field survey, 1991.



The difference in gender composition can be explained by the fact that manufacturing and repair service sub-sectors of the small scale activities are predominately a male domain. The nature of the work involved is still basically dominated by more male than their female counterparts. This therefore provides an indication to the planners in proposing promotion of similar activities in urban residential areas. This is indicative that jobs so created will tend to appeal more to the male than their female counterparts.

There was also a noted difference between the proportions of female respondents between the two study sites. This implies that where the activities are planned women are bound to participate more than where they are unplanned.

### **3.6. OPERATORS AGE STRUCTURE**

The age structure of the respondents ranged from 18-49 years. The mean age was 34.7 years. This implies that operators of small scale manufacturing and repair services are mature people.

From the survey in Kariobangi, the mean age of the operators was 33 years and the minimum and maximum age observed was 18 and 47 years respectfully. There was a noted contrast with the survey from NCKK where the mean age of the respondents was 37 years. The minimum and maximum were 24 and 49 years, respectively.

We can therefore conclude that Kariobangi had younger operators than the NCKK planned site. This could be because of Kariobangi being typically low income neighbourhood, may tend to attract the young immigrants who come to the city for employment hence resorting to small scale activities. This may contrast with the NCKK site activities which requires that operators acquire some tools and skill.

TABLE 7 FREQUENCIES OF AGE STRUCTURE

AGE GROUP	ALL	KARIOBANGI	NCKK
18-25	9.4%	9.8%	8.7%
26-39	59.4%	65.9%	47.8%
40-49	31.3%	24.4%	43.5%
TOTAL %	100%	100%	100%

SOURCE FIELD SURVEY, 1991

Further analysis of the age structure of the respondents reveals that Kariobangi tends to have more respondents in the younger age group than the NCKK respondents. The most predominant age is 26-39 years, an age group where the mean age also lies. Thus, confirming the above observation that the operators are mature and still energetic.

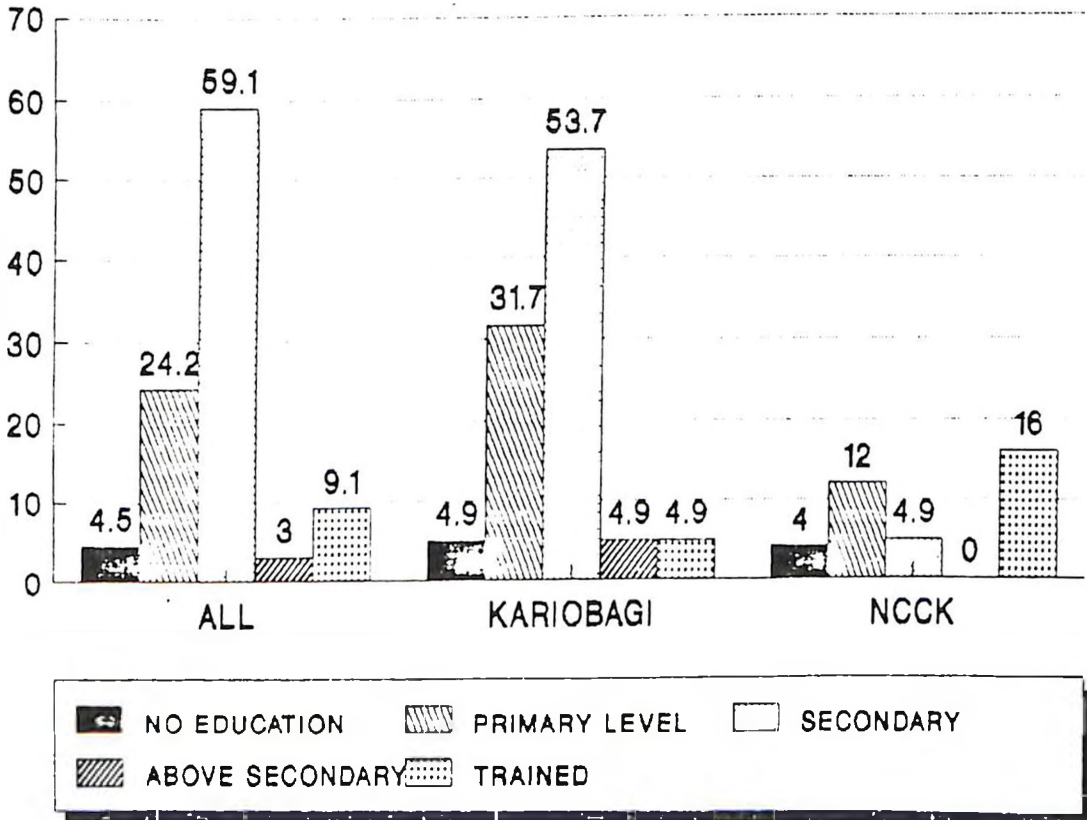
But the differences in age composition infers that the NCKK operators are more experienced than those in Kariobangi. Then the differences in experience is bound to be reflected in the final performance.

Kariobangi being a low income residential neighbourhood, the a fore-going observation is indicative of the fact that this are areas where young immigrants seek refuge in search of employment and therefore tend to resort to small scale business operation.

### 3.7 EDUCATION

As shown in figure 6 the majority of the respondents had secondary education, the next level of education attained by the respondents was primary level. Approximately 9 percent had at least secondary education and training in their field of operation only 4.5 percent had no education.

## EDUCATION ATTAINED BY OPERATORS a comparison



FIELD SURVEY, 1991

Figure 6

In Kariobangi there was a noted higher proportion of people with no formal education. Those with primary education were more in Kariobangi than at the NCKK planned site. The picture that seems to emerge is that the NCKK operators are more educated than their counter parts in similar activities in Kariobangi. This implies that planning the activities enhances their attractiveness to majority of school leavers. The suggestion entailed is that the government can encourage the planning of the activities as an inducement to self employment among school leavers.

The higher education levels observed at the NCKK can be tied with the higher age groups to infer that the area has more qualified workforce than Kariobangi, an aspect that is bound to be reflected in their performance. The lower levels of education together with the younger ages observed in Kariobangi tends to suggest that most operators in the area are young school leavers.

### **3.8 HOUSEHOLD CHARACTERISTICS.**

Most respondents had mean household sizes of about 5.5 persons. Minimum and maximum household sizes were 1 and 15 respectfully. This shows that operators of small scale manufacturing and repair services have large household sizes. Explanation for this can be that in Kenya most people still appreciate large families.

At Kariobangi, the mean house hold size was 5 while at the NCKK it was 6.3, therefore the NCKK operators have bigger house hold sizes than those operating in Kariobangi. This point illustrated by table 8.

**TABLE 8. HOUSE HOLD STRUCTURES IN THE STUDY AREAS.**

H-HOLD GROUP	ALL	KARIOBANGI	NCKK
1-4	31.8%	36.6%	24.0%
5-8	56.1%	51.2%	64.0%
9+	12.1%	12.2%	12.0%
TOTAL %	100%	100%	100%

SOURCE:Field survey, 1991

Operators in both regions of study had the above household sizes (Table 8). In both areas, the mode household size was between 5-8 members. The extreme case of 15 members in a household was reported by a single respondent who acknowledged that he was a polygamist. Such large household sizes however implies high rates of dependency on the operators that profoundly may affect the level of the businesses performance by lowering the levels of ploughing back.

The large household sizes observed at the NCKK can also be explained by the higher proportion of married operators in the site. Table 9 (below) illustrates this point further.

**TABLE 9. MARITAL STATUS OF THE OPERATORS.**

MARITAL STATUS	ALL	KARIOBANGI	NCKK
SINGLE	12.0%	14.6%	8.0%
MARRIED	78.8%	73.2%	88.0%
DIVORCED	7.6%	9.8%	4.0%
SEPARATED	1.5%	2.4%	0%

SOURCE: field survey,1991

The large mean household size can be attributed to the high proportion of married respondents. Seventy-eight percent of the respondents are married, 12.1 percent are single, 7.6 percent divorced and 1.5 percent separated.

Kariobangi has more single operators than the NCKK and still higher percentage of divorced. The NCKK has no separated operator. This therefore explains why NCKK has larger household size than Kariobangi.

### 3.9 MARKETING OF THE PRODUCTS

In Kariobangi over 90 percent of the enterprises depend on local markets compared to NCKK's 64 percent for the sale of their products (Table 10 and figure 7). In each case the market factor does play a role in determining the location of the activities. The market factor is interpreted to mean demand for the products. The high dependency on local markets in Kariobangi might result in less output and low business incomes. This is because the products produced for this market are bound to be of lower quality so as to be within affordable means of the local demand power. On the other hand, products from the NCKK are

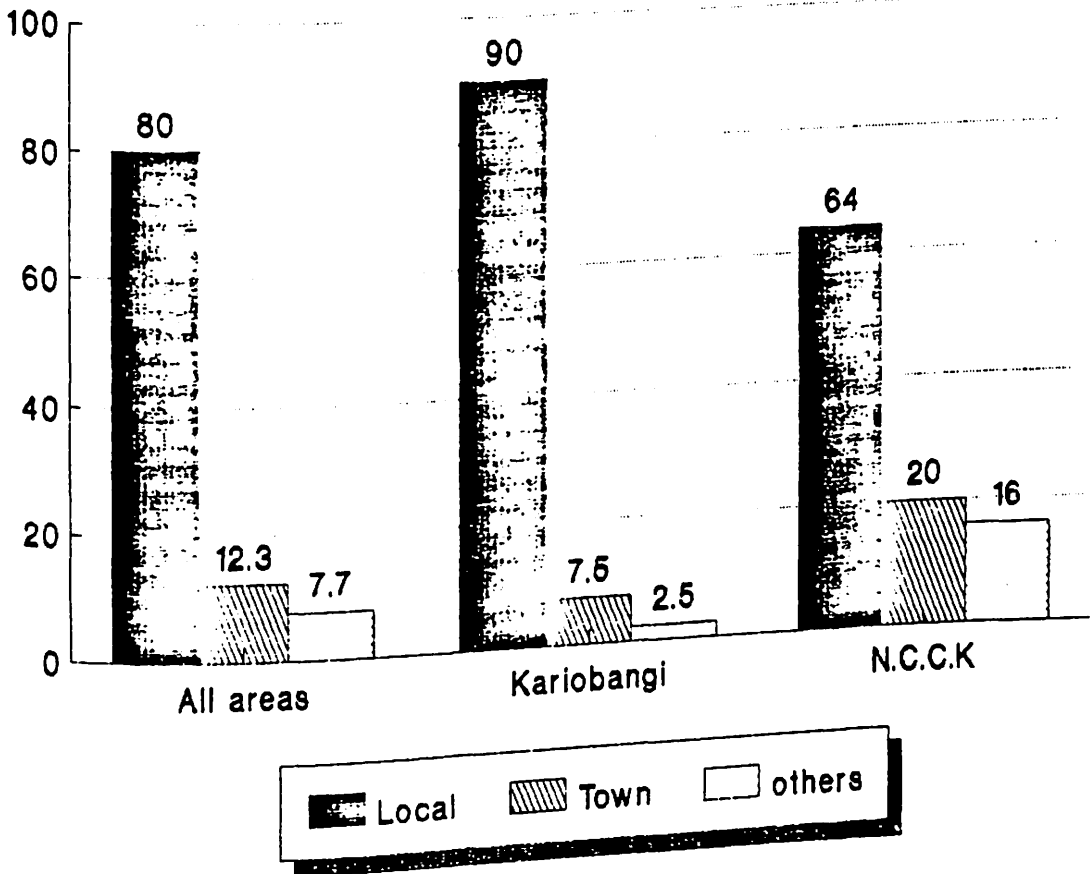
TABLE 10. MARKETING AREAS FOR THE PRODUCTS

MARKET AREA	ALL	KARIOBANGI	NCKK
LOCAL	80.0%	90.0%	64.0%
TOWN	12.3%	7.5%	20.0%
OTHERS	7.7%	2.5%	16.0%
TOTAL %	100%	100%	100%

SOURCE, field survey, 1991.

## MARKET AREA

Percent of enterprises



Field survey.

Figure 7

bound to be of higher quality to meet the demands of middle income residents. The differences in market demand as dictated by affordability be also affect performance in terms of incomes earned to operators in the two neighbourhoods.

This then shows small scale manufacturing and repair activities depend on local market. They will therefore flourish better where local demand is high. This view is supported by the observation that 81.5 percent of the customers in both areas do not incur transport costs. Only 18.5 percent of the customers incur travelling expenses to acquire their needs from the businesses. This points out that most patrons of the products are derived from the local area.

The differences in quality also can be attributed to the higher level of education and training the operators at NCKK have compared to those in Kariobangi. Better quality also needs the use of more machinery. The NCKK small scale manufacturing activities are therefore more capital intensive than in Kariobangi. However, it has been generally observed that the older the businesses the more capital intensive they become, although this depends on the investment capacity.

### 3.10 ECONOMIC SIGNIFICANCE OF THE ACTIVITIES

TABLE 11. RELIANCE ON THE ACTIVITIES AS SOURCES OF INCOME.

SOURCES OF INCOME	ALL	KARIOBANGI	NCKK
SSE ONLY	73.8%	75.0%	72.0%
HAVE OTHER SOURCES	26.2%	25.0%	28.0%
TOTAL %	100%	100%	100%

SOURCE: Field survey, 1991.



Fourty-eight (73.8 percent) of the total respondents said they had no other sources of incomes. But 17 (26.7 percent) had other sources of income mostly from spouses working in formal sectors while others particularly the entrepreneurs, were engaged in the small scale manufacturing and repair activities to subsidize earnings from their formal employment. This finding suggest that small scale businesses provide incomes to a large percent of their urban population in Nairobi. This was noted to be true in both regions despite the disparity of their income levels.

Those with other sources of income had their spouses employed in formal jobs. This in effect points out the insufficiency of salaries from formal employment therefore creating the need to engage in small scale activities. However, there was a noted difference between the two areas; Kariobangi seems to have more people depending on the businesses for incomes than the NCCCK. The same can also be said for those with other sources. The differences can be accounted for by the differences in the neighbourhoods where the businesses are located. Such that operators in the NCCCK site may resort to the activities for subsidizing on earnings from formal employment while in Kariobangi, they are for subsistence. In all the cases, small scale activities can be said to be of significance in income provision to large a population. This finding concurs with the other studies for example the ILO report on Kenya, found that this activities are a source of income to a large section of the populations in the country.

### **3.11 BUSINESS INITIAL CAPITAL.**

The observed mean initial capital for the businesses was KSh.. 17,355. The minimum was KSh. 150 and the maximum KSh. 150,000. The difference was dependent on the type of machinery needed for the operation of the businesses. This observation suggests that the level of capital requirement is determined by the business type.

TABLE 12. FREQUENCIES OF INITIAL CAPITAL IN THE STUDY AREAS.

INITIAL CAPITAL (KSh)	ALL	KARIOBANGI	NCKK
150-5000	15.6%	0.0%	8.3%
5001-10000	46.9%	70.0%	8.3%
10001-25000	20.3%	5.0%	45.8%
25001-150000	17.2%	5.0%	37.5%
TOTAL	100%	100%	100%

Source :field survey 1991

Most businesses had their initial capital ranging from KSh. 5,000-10,000. This is lower than the observed mean of KSh. 17,355. This concurs with earlier studies, for instance Oyieke (1990) which asserts that small scale activities require only little initial capital and hence have easy entry into business. Twenty percent of the businesses had their initial capital within the mean range (KSh. 1,001-25,000) and only 17.2% had more capital that ranged between KSh. 25,000 and 150,000.

At the NCKK, the mean initial capital was KSh. 36772. This was higher than the observed initial capital mean for the whole region. It can be concluded that NCKK had higher initial capital. This however can partly be explained by the NCKK requirement that the allottees own tools.

Kariobangi had a mean initial capital of KSh. 6,676 which is lower than average initial capital. This is bound to affect the level and quality of the products manufactured here. Lower capital for investment in kariobangi can be attributed to low level of education among the operators in Kariobangi. They are basically young school leavers who may not have raised large sums of money for initial capital

outlay. Since, formal employment provides a source of initial seed capital in the informal sector.

TABLE 13. FREQUENCIES OF INITIAL CAPITAL BY ACTIVITY TYPE

INITIAL CAPITAL	WOODWORK	REPAIR WORK	METAL WORK
150-5000	4.7%	6.3%	4.7%
5000-10000	14.1%	20.3%	12.5%
10000-25000	10.9%	1.6%	7.8%
25000-150000	1.6%	7.8%	7.8%
TOTAL %	31.3%	35.9%	32.8%

SOURCE: FIELD SURVEY 1991.

In terms of the businesses and the amount invested at the start of the business, the above table suggests no relationship. This can be explained by the fact that in all cases some tools are required for the start of a successful business. Also, it is the size of the business more than it's type that determines the initial capital input.

#### SUMMARY.

The space available for the planned activities is comparably larger than for the same activities in unplanned sites. This may suggest differences of types of businesses in the two sites. The planned site is dominated by metal followed by the woodwork manufacturing activities, while the unplanned has mainly repair works which have a lower space

requirement. Also, the planned site has more infrastructural provisions than the unplanned ones.

Further, the activities in both sites are characterised by dependency on local markets for the sale of their products suggesting that their location depends on market. Also, in addition to depending on local markets, the planned activities have attempted to extend their markets to the city centre. Through expanding the market area, the planned activities are then bound to have more production levels due to increased market base.

One variable that is more apparent in the businesses socio-economic characteristics is that of gender imbalance. These activities are dominated mostly by men than their female counterparts. However in the planned neighbourhood such as NCKK the number of female entrepreneurs was higher. This indicates that female participation could be enhanced through planning the activities. Also the activities were observed to be a major source of employment to the urban community. Evidence for job opportunities in this sector is stronger when you look at the age structure and education levels of the operators in both sites. Planned activities attracted workers of higher education and more trained people than the unplanned ones.

This chapter compared the characteristics of the planned and unplanned activities. The next chapter however will examine the economic performance of the activities in the two locations.

## **CHAPTER FOUR**

### **INTRODUCTION.**

In this chapter, the study seeks to determine whether planned activities earn the operators more incomes, have higher production levels and create more jobs than the unplanned ones. Student's t-test is employed as a measure of variability. Using a chi-square test to establish correlation, the chapter will conclude by examining factors affecting performance.

### **4.0 ECONOMIC ANALYSIS OF THE SMALL SCALE MANUFACTURING AND REPAIR ACTIVITIES.**

#### **4.1 BUSINESS INCOME**

From the survey the mean earnings was estimated at KSh. 8,196.80 with a standard deviation of KSh. 5,000. The high variance can be explained by seasonal variation in demand for products in the local market. The minimum and maximum incomes were KSh. 400 and 55,000 per month, respectively. The observed mean income is far above the government stipulated minimum wage in urban centres that currently stands at approximately KSh. 900. This further shows further that small scale activities do have great potential in providing more incomes to the urban population.

The Kariobangi operators had mean earnings of KSh. 6,061 per month, minimum and maximum earnings were KSh. 400 and KSh. 55,000 per month. The NCKK operators had higher mean income earnings of KSh. 11,666. The maximum earnings were KSh. 30,000 and the minimum KSh. 1,000. This shows that NCKK operators earn more than the Kariobangi counterparts.

An analysis of incomes by planned and unplanned activities revealed the

following:

TABLE 14. INCOME FREQUENCIES BY AREA

INCOME (KSh.)	ALL	KARIOBANGI	NCKK
400-2000	25.4%	22.2%	3.2%
2001-7000	55.6%	27.0%	28.6%
7001-20000	12.7%	6.3%	6.3%
200001-55000	6.3%	1.6%	4.8%

SOURCE; FIELD SURVEY 1991

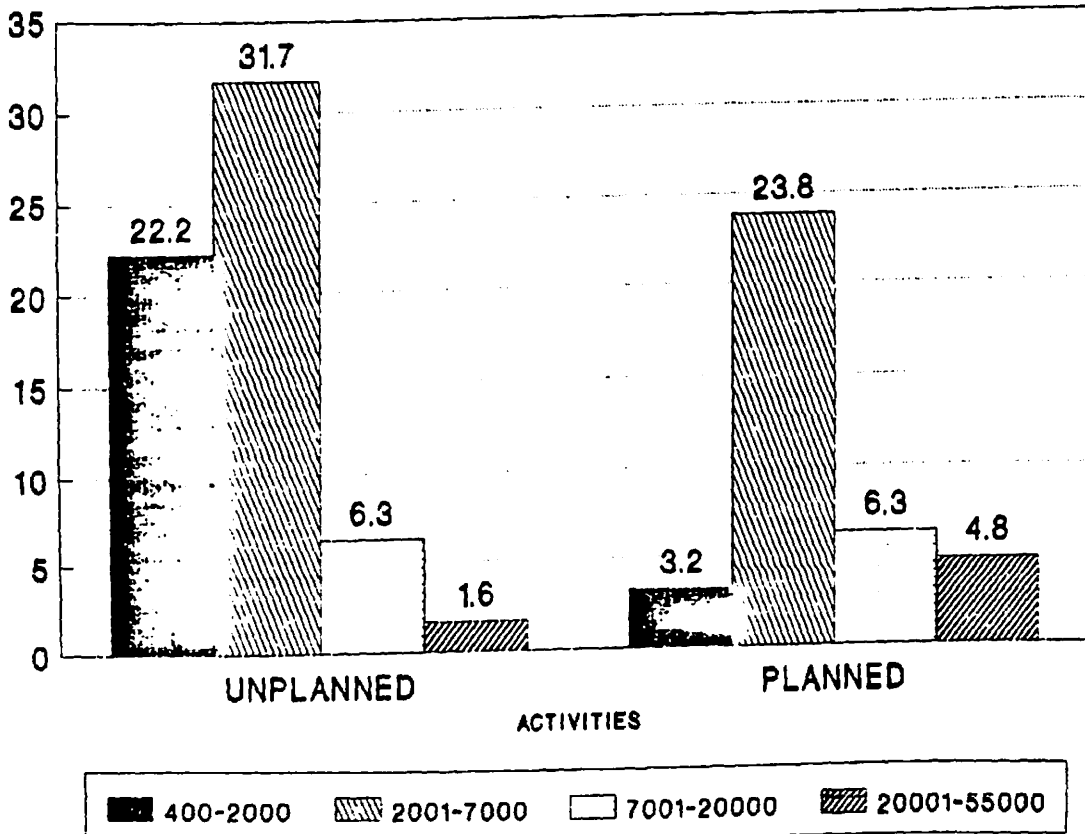
Twenty-two percent of entrepreneurs with the lowest income range were found in Kariobangi. In the same category NCKK had only 3.2 percent of the sampled activities earning the KSh. 400 to 2,000 per month. There were more activities that provided more earnings for the owners at the NCKK than Kariobangi (Table 14).

Basing on the incomes, planned businesses at the NCKK earn more income to the operators than the unplanned ones in Kariobangi. However regardless of whether the businesses are planned or not planned it is clear that the small scale manufacturing and repair activities do earn more to the operators compared to stipulated government minimum monthly incomes. Higher incomes earned may imply that families can improve their status by purchasing new machines and consequently developing the sector. This observation further supports the view that small scale industrial sector has the potential as the base of Kenya's future industrial recoinascence.

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## INCOMES EARNED

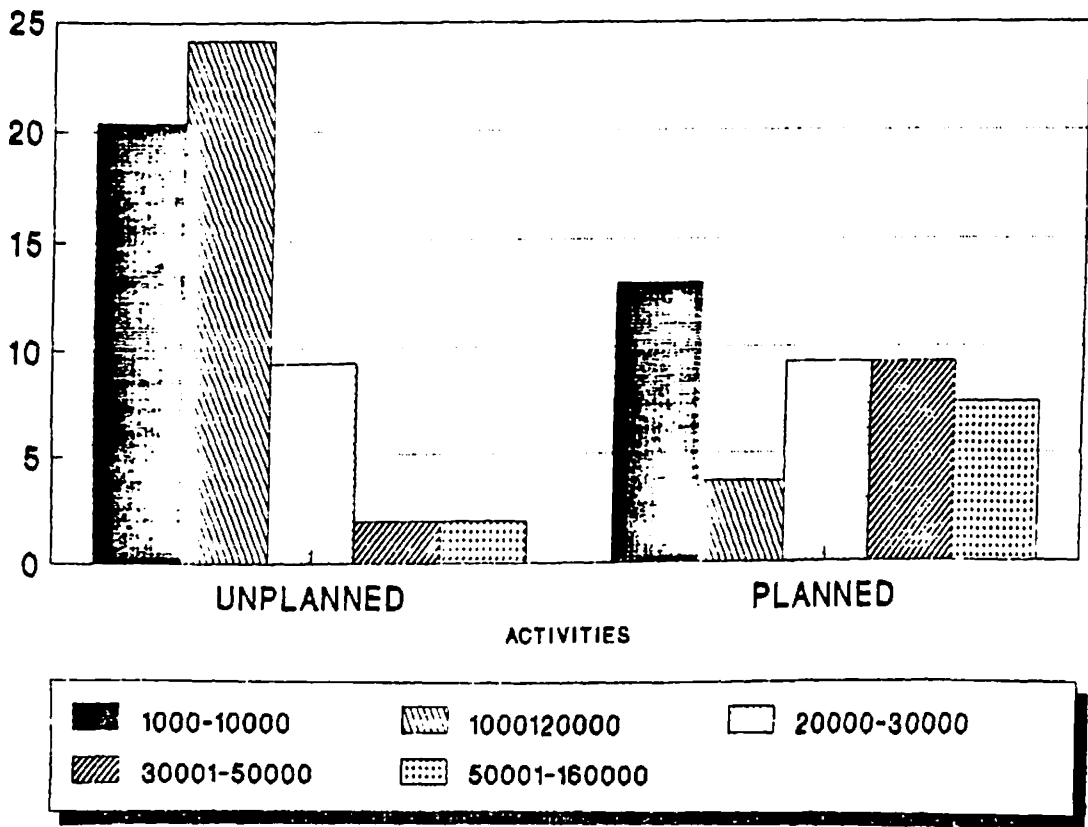
A comparison



FIELD SURVEY 1991

Figure 8

### BUSINESSES OUTPUT (Ksh). A comparison



FIELD SURVEY, 1991

Figure 9



## 4.2 BUSINESS OUTPUT

Business output was calculated in monetary terms. This was done by computing prices of products sold in a month. Business output is an important measure in the estimation of the activities production levels to meet the growing demand of manufactured products in the neighbourhoods.

The mean total sales for the examined activities was KSh. 21,857 per month and the minimum and maximum sales were KSh. 1,000 and 160,000, respectively suggesting high turnover rate. However, the output is determined by supply and demand factors in the local market. Two neighbourhoods therefore are bound to have different outputs as determined by the demand in the respective markets for the products.

The NCKK had mean output of KSh. 37,747 and Kariobangi ones had a mean of KSh. 13,145. The high difference in output (KSh. 24,602) implies a significantly high production at NCKK sites.

TABLE 15 FREQUENCIES OF OUTPUT BY AREA

OUTPUT (KSh.)	ALL	KARIOBANGI	NCKK
1000-10000	33.3%	35.5%	30.4%
10000-20000	27.8%	41.9%	8.7%
20000-30000	18.5%	16.1%	21.7%
30000-50000	11.1%	3.2%	21.7%
50000-160000	9.3%	3.2%	17.4%
TOTAL %	100%	100%	100%

SOURCE; FIELD SURVEY 1991.

Most businesses in Kariobangi had their output less than KSh. 20,000 only

6.4% have output more than KSh. 4,000. While at the NCKK more businesses get more than KSh. 20,000. The implication is that demand for the products is higher at the NCKK than Kariobangi sixty percent of Kariobangi respondents said they experienced highest demands only during month end. However, 50 percent of NCKK respondents said the demand for their products was always available. This observation was particularly so in among those entrepreneurs that also marketed their products in the city centre rather than rely on the local market at the NCKK sites.

An analysis of the output by business types reveals the following (Table 16):

TABLE 16. FREQUENCIES OF OUTPUT BY ACTIVITY TYPES

OUTPUT (KSh.)	WOODWORK	REPAIR	METALWORK	TOTAL%
1000-10000	14.8%	7.4%	11.1%	33.3%
10001-20000	5.6%	16.7%	5.6%	27.8%
20001-30000	7.4%	1.9%	9.3%	18.5%
30001-50000	1.9%	1.9%	7.4%	11.1%
50001-160000	3.7%	1.9%	3.7%	9.3%
TOTAL %	33.3%	29.6%	37.0%	100%

SOURCE; FIELD SURVEY 1991

Metalwork was found to have the highest output followed by woodwork. Repair work had the lowest monthly output. This reinforces earlier observation on the distribution of activities between the two areas, where the repair work was found to dominate the unplanned activities in Kariobangi while the wood work and the metal works were dominant in the planned NCKK site. This leads to a possible

suggestion that the unplanned activities which were observed to have higher percentage of repair works will also experience lower production levels.

### 4.3 EMPLOYMENT

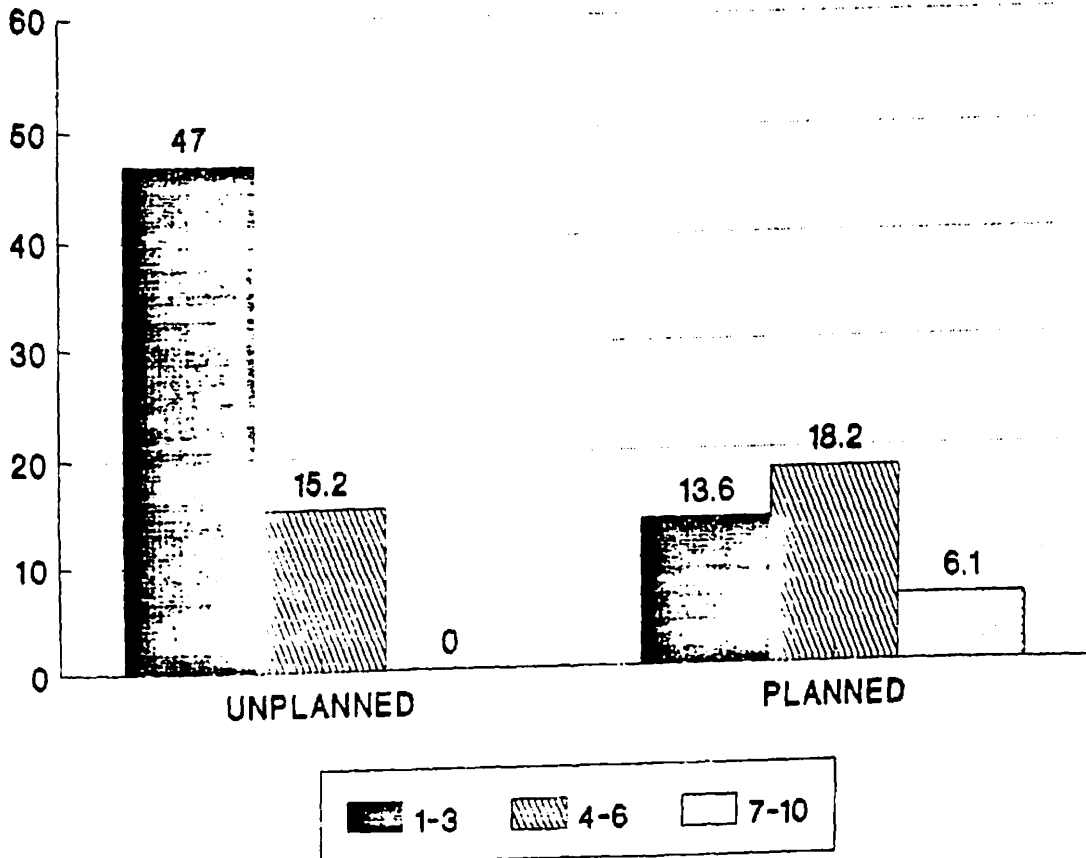
In all cases, 40.9 percent of the enterprises started off as single person enterprises, 31.8 percent had two people while 22.7 percent had 3 employees. The remaining accounted for 1.5 percent in employment contribution. The mean employment was 1.9 employees per establishment. At the time of research survey, the mean employment in the business was 3.2 persons.

Only 16.7 percent establishments were found to be a one man job at the time of the survey. 15.2 percent however had 2 employees. Those with 4 and 5 employees accounted for 28.8% and 22.7 percent respectively. Nine percent of businesses had 5 employees, 4.5 percent had 7 employees. The maximum number of employees per business was 10. In all this cases there is a noted improvement in employment levels. The importance of this observation concurs with the ILO recommendation that the improvement of these activities may provide employment to both rural and urban population of the developing nations.

In Kariobangi, maximum number of employees at the start of all examined businesses was 3. Sixty-five percent of the businesses had a single employee. Twenty-six percent had at least 2 persons employed whereas 7.3 percent had more than 2 employees. Currently most establishments still employ below 4 people. At the NCKK, minimum and maximum number of employed persons at the start of the businesses were 2 and 7, respectively. At the time of this survey, the minimum persons employed were 3 and the maximum was 10.

The NCKK has more employees per establishment than in Kariobangi, however this is dependent on the needs of the labour force and the types of businesses in the two areas. The repair works which dominate the unplanned activities have a comparatively lower multiplier than the metal and wood work.

### EMPLOYMENT LEVELS A comparison



FIELD SURVEY, 1991

Figure 10

#### 4.4. COMPARISON OF THE ACTIVITIES PERFORMANCE IN THE TWO LOCATIONS.

The difference between sample means was assumed to relate to population means. Student t-statistics was used to compare the difference in means. The student t-test was computed as follows:

t = difference between means divided by the standard error of the difference, or

$$t = X_1 - X_2 / (S_d / n),$$

where  $X_1$  is first sample mean,  $X_2$  is second sample mean,  $S_d$  is standard deviation of the difference and  $n$  is the sample size for the two samples population.

##### 4.4.1 INCOMES.

Income in the study refers to the net monthly profits accruing from the businesses. It however includes the employees salary/ wages. An analysis of the income accrued between the unplanned and planned activities showed the following distribution. As in figure 12, 22.2 percent of the unplanned activities had low income (KSh. 400 to 2,000), 31.7 percent had large (KSh. 2,001-7,000) income and this trend dropped sharply with large income category (KSh. 7,000-55,000) had only 1.6 percent business.

The unplanned activities were found to have a mean income of KSh. 6,061 per month. The planned activities had a mode income in the large monthly income group of KSh. 2,000-7,000, however only 3.2 percent of businesses were in the lowest income group KSh. 400-2000. About 5 percent of businesses were in the largest monthly income category of KSh. 20,000-55,000.

In general, the planned activities accounted for 38 percent of the business

compared to 61.9 percent of the unplanned activities. This suggests that so far the unplanned activities still dominate the city. The planned activities had a mean monthly income of KSh. 11,666.

Student's t-test was used to establish whether there is significant difference between the two mean incomes of the planned and unplanned activities. Using the pooled variance estimate there was a significant difference between the two means with planned activities having a higher monthly income compared to the unplanned activities ( $t = 2.41$ ,  $df = 6$ ,  $p < 0.05$ ).

In conclusion, planning for the activities is essential in improving the operators incomes. Increased incomes will then go along way in improving the economic development of the country by increasing purchase power.

#### 4.4.2 OUTPUT

The business output in this study were their monetary monthly sales which is gross sales of the businesses. Comparison of the output level between the two regions is shown in figure 12.

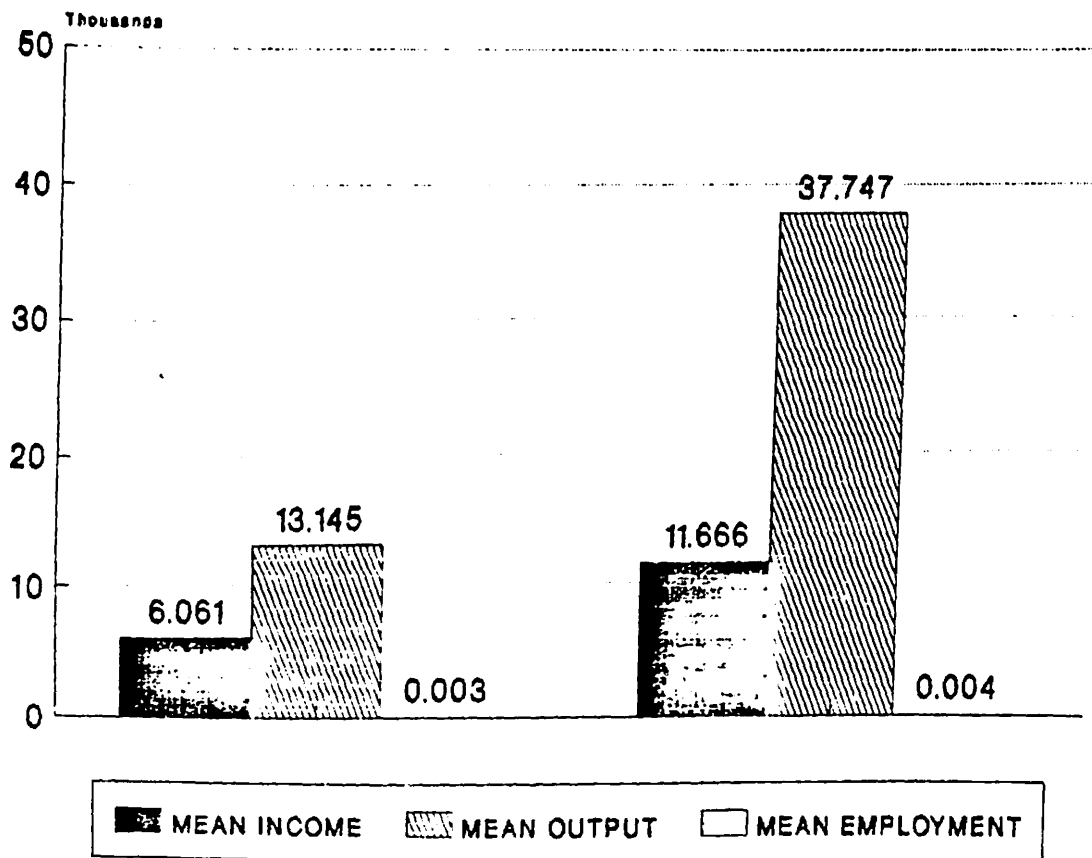
Approximately 20 percent of planned activities had smaller output amounting to only KSh. 1,000-10,000. The mode was between KSh. 10,000-20,000. Thirteen percent of planned activities had the least output which is lower than 20 percent of the unplanned activities in the same category. Overall, the unplanned activities in the areas studied accounted for 57.4 percent of all activities in the sector. Thus reinforcing earlier observation that the unplanned activities are scattered and are still important in Nairobi. However, planned activities tend to produce more products for sale than unplanned ones.

The mean output of the two areas were KSh. 13,145 (unplanned) and KSh. 37,747 (planned). Student's t-test for significant difference was computed. Using student's t-test for pooled variance estimate showed that there was a significant

difference between the two means with planned activities having a higher output than the unplanned ones ( $t = 2.49$ ,  $df = 6$ ,  $p < 0.05$ ).

These findings suggests that we need to plan for the activities in order to enhance their levels of production. This will ensure supply of manufactured goods to the local markets and save on the scarce foreign exchange.

### PERFORMANCE COMPARISON MEAN INCOME, OUTPUT, EMPLOYMENT



FIELD SURVE. 1991

Figure 11



#### 4.4.3 EMPLOYMENT.

Employment was defined as the number of people employed in the establishments at the time of the survey. Figure 11 shows 47 percent of the unplanned activities with only 1-3 employed people. Fifteen percent of businesses had employed persons ranging 4 to 6. On the other hand, planned activities had an overall employment of 4-6 workers per establishment, with at least 6.1 percent businesses employing between 7-10 workers. However, unplanned activities accounted for 62.1 percent of the total employment compared to 37.9 percent of planned activities. This difference was significant ( $t = 5.35$ ,  $df = 64$ ,  $p < 0.05$ ) showing that the unplanned activities despite the low output provided more employment per occupation to Nairobi residents than the planned activities. However, the unplanned activities may provide an occupation for more people who may be earning much less than the fewer employees in the planned activities. This suggests that despite high workers per business in the planned activities the unplanned businesses are more widespread and provide more employment.

Like the income and output, employment findings suggests that in order to create jobs that provides salaries that may meet the expectations of the participants we need to plan for the activities. Planned activities will be more attractive to school leavers of higher education thus reducing pressure on demand of white collar jobs from the formal sector.

#### 4.5 FACTORS AFFECTING PERFORMANCE OF SMALL SCALE MANUFACTURING AND REPAIR SERVICES.

The above findings and discussion on economic performance of planned and unplanned activities leads to a conclusion that certain factors affect the performance of the activities.

This survey categorised the activities into, repair works, woodwork and metalwork. From the analysis, factors bound to affect the economic performance of the activities include; initial capital, education levels of the operators, infrastructural availability, market and household size. These variables were tested for significant correlations. The chi-square ( $\chi^2$ ) test was used to show the effect of these variables on the output, incomes and employment levels of the businesses under examination.

The chi-square test.

The chi-square test was used to test the correlation of an actual frequency distribution with the expected one (Hammond and Mccullagh 1974). In the study it was applied to test whether or not the market area, education level of the operators, household sizes of the operators and level of infrastructural provision had any relationship with the activities performance. The chi-square test was used to test the hypothesis that the variables had no significant relationship with the performance of small scale manufacturing and repair activities.

The procedure of the chi-square test involved taking the difference between the observed frequency in each class of the variables and its corresponding expected ( $O_i$ ) or computed frequency ( $E_i$ ), squaring the value, dividing the expected frequency and summing these quotients. The equation for this is:

$$\text{Chi-square} = \frac{(O_i - E_i)^2}{E_i}$$

The probability of chi-square value occurring by chance was obtained to decide whether or not the sample distribution was different from the expected. But the chi-square test computed does not take into account the manner in which the observed and the expected frequencies are distributed.

As it will be demonstrated in the later part of the study, the results showed that there was a strong relationship between market and output, infrastructure and income and employment, education and output. The household size however had

no relationship with any of the three adopted measures of performance.

#### 4.5.1 SPACE.

The null hypothesis is that size of the work sites does not significantly affect the businesses performance.

From the cross-tabulation of space against output, employment and income, the chi-square test showed that there was significant influence of space on output ( $\chi^2 = 21.1$ ,  $df = 12$ ,  $p < 0.05$ ), employment ( $\chi^2 = 12.5$ ,  $df = 6$ ,  $p < 0.05$ ) and income ( $\chi^2 = 21.0$ ,  $df = 12$ ,  $p < 0.05$ ) levels of the activities.

#### 5.5.2 INFRASTRUCTURE

In this study, it was hypothesised that infrastructure had significant effect on productivity and hence affect performance of the small scale manufacturing and repair services. Regarding infrastructure, electricity and water were considered the most important. Therefore, the null hypothesis was that availability of water and electricity does not significantly affect the business performance.

A chi-square test performed showed that water availability had no significant effect on the business income ( $\chi^2 = 0.36$ ,  $df = 3$ ,  $p > 0.05$ ). The explanation for this observation could be in the nature of the examined activities. Water as a requirement may be essential commodity to the operators themselves than to the activities. A similar test was performed for water availability at the site against employment levels, the chi-square test showed that there was no significant influence of water on employment ( $\chi^2 = 0.45$ ,  $df = 2$ ,  $p > 0.05$ ). Also, water availability had no significant effect on the output of businesses ( $\chi^2 = 9.48$ ,  $df = 4$ ,  $p > 0.05$ ).

Cross-tabulations of electricity and income, output and employment levels were done. Chi-square test showed that electricity had a significant relationship

with employment levels of the small scale manufacturing and repair activities ( $\chi^2 = 7.82$ ,  $df = 2$ ,  $p < 0.05$ ).

TABLE 17 CROSSTAB OF ELECTRICITY BY EMPLOYMENT.

No. EMPLOYED	%PRESENT	%NOT PRESENT	TOTAL
1-3	15.2	45.5	46
4-6	18.2	15.2	22
7-10	4.5	1.5	4
TOTAL	37.9% (25)	62.1% (4)	100% (66)

Chi-square 7.75,  $df = 2$  and  $p = 0.0202$ .

Table 17 shows that establishments with electricity accounted for 37.9 percent while those without accounted for 62.1 percent of the total employment. On average those with electricity recorded higher employment than those without. It can be inferred that the presence of electricity enhances opportunity for creation of employment. This observation can be used to account for the lower employment levels in the unplanned activities. The unplanned activities had only 26.8 percent of the establishment with electricity supply compared to 56 percent of the planned activities. Therefore, unplanned activities are not well endowed of infrastructure. To observe that electricity supply has an effect on the employment factor is an issue which calls for policy action.

Further observation was that there was a significant relationship between electricity supply and business income ( $\chi^2 = 8.35$ ,  $df = 3$ ,  $p < 0.005$ ).

TABLE 18 CROSSTAB OF ELECTRICITY BY INCOME

INCOME (KSh.)	%PRESENT	%ABSENT	TOTAL
400-2000	6.3%	19.0%	25.4% (16)
2001-7000	1.9%	36.5%	55.6% (35)
7001-20000	6.3%	6.3%	12.7% (8)
20002-55000	6.0%	-	6.3% (4)
TOTAL %	38.1% (24)	61.9% (39)	100% (63)

Chi-square 8.35, df = 3, p = 0.039

Table 18 shows that activities without electricity on their premises tend to earn incomes lower than KSh. 20,000 in contrast to those activities which are supplied. Contrary, establishments with electricity recorded higher incomes than those without. Overall, electricity had a significant influence on the earned incomes ( $\chi^2 = 8.35$ , df = 3, p < 0.05).

Cross-tabulation of electricity by business output showed no significant relationship ( $\chi^2 = 3.32$ , df = 4, p > 0.05). This observation suggests that electricity provision does not determine the businesses turnover. This could be because production capacity of the enterprises will be a function of other factors like the skills of those operating the businesses.

#### 4.5.3 HOUSEHOLD SIZE

The analysis of household size is important regarding the effect on business performance due to its overall dependency on business. As a factor, household size manifests itself in the investment levels by the potential entrepreneurs in the businesses. The null hypothesis was that there is no significant relationship between

household size and the performance of small scale manufacturing and repair service.

From the cross-tabulation of the household size by employment levels, chi-square test showed that there was no significant influence of household size on employment levels ( $\chi^2 = 7.52$ ,  $df = 4$ ,  $p > 0.05$ ). This observation may be explained in the fact that most of the respondents were members of the household and were employees.

A chi-square test of the household size and business output showed that there was no significant relationship between them ( $\chi^2 = 3.97$ ,  $df = 8$ ,  $p > 0.05$ ). This observation suggests that an entrepreneurs family size will not significantly influence the businesses output in the absence of other factors. It then follows that the number of people who may depend on the businesses for livelihood will not affect the business output mostly when they provide labour force the activity.

#### **4.5.4 EDUCATION**

Chi-square test was performed to establish the relationship between education levels attained by the operators and the business performance. The null hypothesis was that the levels of education attained by the operators does not significantly affect the activities performance.

Cross-tabulation of education levels attained by the operators was compared to business incomes using chi-square test showed that there was no significant relationship between these parameters ( $\chi^2 = 11.3$ ,  $df = 12$ ,  $p > 0.05$ ). This implies that education level of entrepreneurs does not significantly affect the incomes earned by the operators from the business. Similar to the above relationship, education level and employment levels were not significantly related ( $\chi^2 = 9.47$ ,  $df = 8$ ,  $p > 0.05$ ). It was concluded that education level attained does not affect the employment levels of the manufacturing and repair services. These observations

confirms King's (1977) findings that small scale activities in Kenya are open to anybody regardless of their education status. The above findings suggest that incomes and employment capacities will be determined by other factors other than levels of education of those involved.

Contrary to the above observations, the chi-square test showed that there was a significant relationship between education level and business output ( $\chi^2 = 26.36$ ,  $df = 16$ ,  $p < 0.05$ ). It is obvious that education enhances skills and hence business output.

TABLE 19. CROSS-TABULATION OF BUSINESS OUTPUT BY EDUCATION

BUSINESSES OUTPUT LEVELS IN 000'KSH..

EDU. LEVEL	1-10	10-20	20-30	30-50	50-160	ROW/TOTAL
NONE	0	0	0	0	1.9	1 (1.9%)
PRIMARY	11.1	9.3	1.9	0	0	12 (22.2%)
SECONDARY	22.2	13.0	16.7	7.4	5.6	35 (64.8%)
ABOVE SEC.	0	1.9	0	0	0	1 (1.9%)
TRAINED	0	3.7	0	3.7	1.9	5 (9.3%)
COL./TOTAL	18 (33%)	15 (30%)	10 (18%)	6 (11%)	5 (9%)	54 (100%)

Chi-square value is 26.36,  $df = 16$ ,  $p = 0.049$

From table 19, frequencies of total percent of those who produce goods worth KSh. 1,000-10,000 represent 33.3 percent of the business, of this 22.2 percent have a secondary education. The next group of business output (KSh. 10,000-20,000) had 29.8 percent with 13 percent of the entrepreneurs have a secondary

education, 9.3% had primary education and 3.7% had some form training. Of the 18.5 percent businesses which produced average output of KSh. 20,000-30,000, 16.7% had secondary education, 1.9 had primary education. In the two higher output observed, none of the operators had no education. All the operators had secondary education.

This seems to point out that for higher output the operators need to have attained higher education. This tends to account for the current trend of school leavers joining the sector. This observation confirms Oyieke's (1990) findings.

#### 4.5.5 MARKET

Market in the process of production has always been assumed to affect demand for the products produced. This affects the overall performance of the producing enterprises. The location of the small scale manufacturing and repair facilities in the neighbourhoods is due to the fact that this is where they have a market for their products. To test the role of market availability as a factor in business performance a null hypothesis that market area does not significantly affect the business performance was adopted.

From the cross-tabulation it was observed that there was no significant relationship between marketing areas and incomes earned from the businesses ( $\chi^2 = 6.41$ ,  $df = 9$ ,  $p > 0.05$ ). This finding shows that whether products are marketed locally or otherwise does not significantly affect the incomes earned. This can be explained by the fact that in most cases prices for the products will tend to be the same.

Like incomes, cross-tabulation of market area in the manufacturing and repairworks showed that there was no significant relationship with employment levels ( $\chi^2 = 5.99$ ,  $df = 2$ ,  $p > 0.05$ ).

The cross-tabulation of the market area with business output showed that



there was a significant relationship between them ( $\chi^2 = 36.8$ ,  $df = 12$ ,  $p < 0.05$ ). The relationship of market area was significant to business output unlike that to income and employment levels.

As shown by the table 20, firms which market their products locally account for 86.4%. Those that sell to city centre market accounts for only 15.1%. Thus, the local demand can be said to be an essential issue in the activities development and to some extent justifying their location in residential neighbourhoods.

From the above observations we conclude that factors which affect local demand in the neighbourhoods do also affect

TABLE 20. CROSSTAB OF MARKET AREA AND BUSINESSES OUTPUT.

OUTPUT (KSh. '000)	LOCAL	TOWN	OTHERS	ROW/TOTAL
1-10	34.0	0	0	34.0%
10-20	25.9	0	0	25.9%
20-30	13.2	7.6	0	18.9%
30-50	9.4	0	1.9	13.2%
50-160	1.9	7.5	0	9.4%
COLUMN	41	7	1	53
TOTAL	86.4	15.1	1.9	100%

Chi-square value 20.4,  $df = 4$ ,  $p = 0.0004$ .

businesses output. Since the NCKK small scale industrial site is surrounded by middle income neighbourhood when compared to Kariobangi, therefore there is a possibility of the NCKK residents to exert a higher demand than the Kariobangi residents. This is bound to result in more output at the NCKK than in Kariobangi.

Increased output from the enterprises at the NCKK can therefore enhance incomes from the sales. This indirectly would create more employment opportunities.

#### 4.5.6 INITIAL CAPITAL

Initial capital for investment may influence businesses performance by determining the sizes of the enterprises as well as types of businesses an entrepreneur may engage in. To test the relationship of initial capital for investment and business performance the adopted null hypothesis was that there was no significant relationship between initial capital invested and businesses performance.

The cross-tabulation of initial capital and business employment level showed that there was no significant relationship between them ( $\chi^2 = 7.75, df = 6, p > 0.05$ ). This observation is valid when it is considered that the growth of employment status in an establishment will be influenced by other factors within the business itself than the initial capital.

A similar test was done on the businesses output and it was observed that there was a significant relationship between initial capital and businesses output ( $\chi^2 = 30.9, df = 9, p = 0.003$ ).

TABLE 21. CROSS-TABULATION OF INITIAL CAPITAL BY BUSINESSESOUTPUT.

OUTPUT ('000) KSh.						ROW
INCAP. KSh.						
'000	1-10	10-20	20-30	30-50	50-160	TOTAL
150-5000	11.3%	1.9%	-	-	-	7 (13%)
5000-10000	13.2%	20.8%	11.3%	-	-	24 (45%)
10000-25000	3.8%	-	7.5%	5.7%	5.7%	12 (19%)
25000-150000	5.7%	5.7%	-	5.7%	1.9%	10 (19%)
COLUMN	18	15	10	6	4	53
TOTAL	34.5%	28.5%	18.9%	11.3%	7.5%	100%

Chi-square value is 34.1,  $df = 12$ ,  $p = 0.0006$

The conclusion here is valid in cases where comparison of similar activities is undertaken. However, the initial capital for investment in the businesses does determine the business size as well as its production level. This leads us to conclude that higher outputs observed at the NCKK could be accounted for by the high initial capital invested in the activities located in the site. Table 21 supports this conclusion, the frequencies of output against initial capital show that there is more production where higher capital was invested.

A cross-tabulation between income earned from the businesses and the initial capital invested revealed a strong relationship ( $\chi^2 = 34.1$ ,  $df = 12$ ,  $p < 0.05$ ). Like the effect of initial capital on output, the incomes earned will also be determined by the size and levels of investment. However, this assumes situations where other factors like market demand are constant.

TABLE 22: CROSS-TABULATION OF INITIAL CAPITAL BY INCOME.

**INCOME IN KSh.**

INCAP. KSh.	400-2000	2000	7000	20000	TOTAL
150-5000	11.5%	1.6%	1.6%	1.6%	10
5000-10000	13.1%	29.5%	3.3%	-	28
10000-25000	-	13.1%	6.6%	-	12
25000-150000	1.6%	9.8%	1.6%	4.9%	11
TOTAL	16	33	8	4	61

Chi-square value 30.9, df = 9, p = 0.0003

These findings shows that to enhance incomes and outputs in small scale manufacturing and repair works there is need to ensure the availability of initial capital to the potential investors.

#### SUMMARY.

In conclusion, it was established that there was a significant difference as regards the economic performance of planned and unplanned activities. The most important factors that were found to influence activities performance included market area, electricity supply, initial capital, space, and education level of the entrepreneurs. This analysis showed that planned activities were better endowed with this aspects than the unplanned ones.

## CHAPTER FIVE

### FINDINGS, POLICY IMPLICATIONS AND CONCLUSION

#### INTRODUCTION.

This study was set out with three main objectives. First was to examine the characteristics and the economic performance of the planned and unplanned small scale manufacturing and repair activities. The essence was to test the hypothesis that planned activities perform better than the unplanned ones. The second objective was to examine factors which affect the activities performance and lastly, to formulate a policy that focuses on the improvement of the activities.

The need to enhance economic performance of the small scale manufacturing and repair businesses must be seen in the context of the increasing urban population and related problems. The analysis in the previous chapters have shown that increased performance will depend on a number of factors. Among these factors are the composition of the entrepreneurs, the market, the spatial, and financial factors. This chapter provides a synthesis and discussion of the planning issues identified in previous chapters.

#### 5.1 PLANNING ISSUES IDENTIFIED.

##### 5.1.1 BUSINESS CHARACTERISTICS.

Spatial planning of the NCKK site in the Makandara neighbourhood ensures larger spaces for the work sites. The mean size of space here was 299.7 m<sup>2</sup> compared to 74 m<sup>2</sup> in Kariobangi. Thus, unplanned activities operates in smaller spaces than planned ones. The unplanned activities are located in open spaces within the neighbourhood creating a conflict of land use in an area planned for a

residential purpose.

Since Kariobangi has small spaces, the repair activities that require small spaces for their operation have dominated the area. This contrasts the NCKK planned site where larger spaces have attracted location of wood and metal works. In the NCKK site, the business operation have specific work sites which limits chances of interference with the neighbouring residential establishments.

The differences in the composition of the activity could contribute to the differences in their performance. The metal and wood works by nature of their products have a chance of incurring higher sale returns to entrepreneurs than the repair works. By nature of their work, metal and wood works activities are likely to employ more people than repair works.

It was established further that supportive infrastructural services provided in the work sites enhanced the performance of the activities. Infrastructural services are not only inputs but useful in the aesthetics of the working environment. Where the environment is maintained, the activities appeal to more participants and to donors in general.

Planned activities were found to be well endowed with infrastructural services compared to the unplanned ones. Most establishments had most of the services compared to the proportion in Kariobangi. In the unplanned site, the activities were found to rely on services provided for the resident population. Given that the operators are not landlord of the dwelling units, conflict in terms of exorbitant charges and inconvenience to residents is bound to occur. In such cases good performance of the entrepreneurs is further limited by locational factors under discussion. Moreover, lack of the services exposes products of the businesses to poor environmental conditions leading to decay. In this study, it was further noted that though the activities are still dominated by more males than females, there are more female participants in the planned than in the unplanned businesses. The

explanation for this could be that planned activities have more spatial order than unplanned ones. To ensure that the activities attract all members of the community there is need therefore to institute spatial planning policies for the activities.

Also, the above inference reinforces the observation made from the study that the activities attract participants from all levels of social structure. This confirms King's (1977) observation that in Kenya the small-scale activities are open to anybody. The planned activities, however, employ people of higher education than the unplanned ones. The presence of more educated people helps to show the significant role the activities may play in the economic development of the urban neighbourhoods. The suggestion here is that planning the activities enhances their attractiveness to school leavers thereby reducing the pressure of job creation on the formal sector. The presence of more skilled workers in the planned site than the unplanned may also affect their performance.

### **5.12 ECONOMIC PERFORMANCE.**

From the analysis, it was generally established that planned activities perform better than the unplanned ones. The planned activities earned more incomes to entrepreneurs than the unplanned activities. The mean earnings as shown by the students' t-test were significantly different. The planned activities had a mean income of KSh. 11,666 while the unplanned one earned only KSh. 6,061 per month. The differences may however be explained by the differences in the nature of the products of the businesses in the two areas. The wood and metal works by nature of their products can earn more than the repair works. On the contrary, the actual products that are produced in the two areas may heavily be influenced by the infrastructural services and the market level in the two areas.

The differences in the incomes can also be explained by the observed differences in output. The planned activities had mean output valued at KSh.

37,747 while the unplanned produced goods worthy only KSh.. 13,145 per month. The implication is that planned activities produces more products of higher quality than the unplanned ones. Thus, such produce can ensure more supply of the import substitute manufactured products to meet the local demand thereby saving on the scarce foreign exchange.

The observed high incomes and production levels in the planned site can be said to influence the employments levels. High monthly incomes allow for the engagement of additional workers. More output also creates the need for more workers. This may explain why the planned activities have more employees than the unplanned ones which have low income and low production levels and are therefore constrained in creation of employment. The business composition may also account for the differences in employment levels. The manufacturing activities may require more workers than the repair works.

## 5.2 FACTORS AFFECTING PERFORMANCE

The analysis of the history of small scale industry in Nairobi shows that there is less emphasis on this sector by the policies of the Kenya Government. This may be a reason to explain why the activities are not usually incorporated in the site plans. The activities tend to be located due to response of the needs of the people. The analysis reveal that availability of space has influence on the activities employment levels. This is because space allows for the expansion of the activities. The planned activities with comparatively larger spaces were observed to have more employees than in the unplanned ones.

Space availability can also be said to account for the differences in the activities distribution between the two areas. Larger spaces in the planned activities have attracted location of wood and metal works. This is in contrast to unplanned areas where small spaces have attracted the location of repair works which require



small space.

Where space is provided in the planning of the neighbourhood, it was noted to be well catered for with infrastructure. Sanitary and drainage services are necessary for the environmental health condition. Water on the site is useful to the operators. Electricity was noted to influence income earned and the employment levels. It reduces the production costs by making work lighter. The planned activities which had 67 percent of establishments with electricity had more income than the unplanned. Thus, contrasting with the unplanned activities, where only 37 percent of the establishments had access to electricity.

The differences in access to electricity also could account for the observed differences in employment levels. The planned activities can be said to have more employees than unplanned ones because of the presence of electricity, where the means were 4.48 and 2.51, respectively. Electricity expands the capacity of the businesses by reducing production costs.

There is need for more capital in order to support the provision of services. This explains why the planned activities had more initial capital than unplanned ones. Size of initial capital was found to influence the income and output levels. However, given the income levels of the neighbourhoods, high initial capital requirement in planned site may be a hindrance for the participation of the local community where the activities locate.

It was established that the activities depend on local markets for the sale of their products. This is bound to affect performance where the neighbourhoods with low income earners will have low purchasing power thus causing constrain on production level and quality. The influence of the neighbouring middle income residents of NCKK may result in the difference in performance.

In summary, to improve the performance of small scale and repair activities to meet the countries development goals, the future planning policies should address the following issues:

- i) Space availability.
- ii) Supportive infrastructure.
- iii) Avail a high initial capital.
- iv) Market expansion.

In view of these, a number of policy Programmes are recommended. These programmes are aimed at addressing the above issues and guide future planning for small scale activities in low income neighbourhoods in Nairobi.

### **5.2.1 POLICY IMPLICATION.**

The major guidelines in setting out policy recommendation is the existing policy on small scale activities. The Government policy emphasises growth of employment in the subsector. The policies are still defined within the context of the large scale industries. Consequently, policy tends to discriminate against small scale firms of the category employing 1-10 people. There is need to formulate policies that are specific to the small scale industries.

### **5.2.2 PROVISION OF SPACE**

From the analysis, one major short fall in the practice of physical planning is the failure to provide space for the activities in low income neighbourhoods in Nairobi. The study indicates that there is need to provide a conducive spatial setting for the activities. This will encourage the location of more manufacturing which have more employment capacity than repair works. In low income areas there is need to encourage employment facilities to locate nearby since majority of the people depend on the activities as sources of income.

The study noted that the NCKK site had been set aside during the planning of the Makadara neighbourhood. This has several advantages among which is the lack of displacement costs to be incurred by the local planning authority for the dwelling units where such activities need to be planned. Therefore, as a policy, this study recommends that in the spatial planning of low income residential areas, space for the activities should be set aside so that the settling population can participate in the subsector without causing conflict.

While planning for such neighbourhoods the planners can be encouraged to identify and zone particular areas as small scale industrial site. Site plans for such zones can then be made to facilitate easy occupation by potential investors. Because the activities have been shown to depend on the local market, such zoned sites should be within close proximity to residential areas. Where activities are intended to co-exist with the resident population, planners can be encouraged to provide adequate open spaces within the neighbourhood.

The essence of this plan is to reduce conflict among the various land uses in the neighbourhoods. It is also necessary for planners to identify the type of activities suited to various environments so that facilities are provided accordingly. Where neighbourhoods are next to higher income areas, emphasis should be on metal and wood works. The study indicates that metal work and wood work provide more employment, more output, and more income than the repair work.

Where the activities have already located like Kariobangi the planning authority will incur some costs to solve conflict land use. This may require demolition of some other land uses to create the required space. Compensation for these demolition will therefore be necessary. Alternatively, the planners can institute control measures on the location of activities which may require more space and encourage repair works (with exception of garage works) that can operate on a smaller space.

Where space is provided, it is recommended that the operators are encouraged to construct their own workshops. Such a policy will help reduce costs on the part of planners and also encourage use of local resources.

### **5.2.3 PROVISION OF INFRASTRUCTURAL SERVICES.**

From the analysis, infrastructure is an essential ingredient for development of any activity. Electricity, for instance, improves quality and saves time. This means that enterprises with electricity can produce more products within a short time and therefore make more monthly income.

It is recommended that in providing the spaces, consideration be given to the availability of the services. Programmes aimed at concentrating the activities in certain locations need to be addressed. Such programmes will involve zoning and construction of sheds. Concentrating the activities ensures distribution of the costs of installing the services to the consumers. The Ministry of Works and Kenya Power and Lighting Company can lay main service lines to the sites. The operators can be encouraged to form cooperatives through which they can raise funds to get the services distributed to individual workshops. For the activities located within the neighbourhood, however the services need to be incorporated. This will reduce the dependence of activities on services provided to dwelling units.

### **5.2.4 MARKET EXPANSION**

Market area was shown to influence business output. The existing policy sidelines those small scale activities employing 1-10 people. The bureaucratic procedures involved might hinder their participation in wider markets. In planning for the activities, the market should be considered. The availability of a market stimulates production due to the demand created.

Local markets were noted to play a major role in the location and

development of the activities. But reliance on local markets may have limitations. It might hinder innovations or limit production rates during times of low demand. This study recommends the following policies so as to expand the market areas for this activities.

First, the formation of cooperatives among operators can be encouraged. This will enable them to raise enough stock of products to sell in bulk to far markets more economically. The cooperative can pioneer opening outlets in the city centre. The production will be enhanced since the city centre markets are larger and more likely to make higher sales. In this case, regional as opposed to local marketing policies need to be emphasised in the development policies.

Second, the Government can help the development of the activities by extending tenders to the cooperatives. The activities offer great potential in meeting the Government's furniture needs and motor vehicle repair and maintenance.

Further, the study recommends research to be undertaken to gather information on the market situation. The Ministry of Marketing can finance and organise the research. The Government provides suitable agency to conduct such a research because of the economies involved which may be beyond the enterprises themselves.

The main purpose of enlarging the market area would be to stimulate increased production to exploit fully the existing potential. Increased production due to increased demand will stimulate demand for more labour. In the same manner, more output will ensure smooth flow of incomes to the operators. The significance of this will be increased overall development of the economy due to enhanced purchasing power of the population in the urban areas. Moreover, the need to expand the market area will be in line with the Kenyan outward industrial policy. Such a policy aims at stimulating local production for exports to other areas.

### 5.2.5 IMPROVEMENT OF FINANCE

The findings of the study reveal that initial capital is important for increased performance. Thus for the urban operator who would lack collateral to give to lending institutions, loans could be made available. Commercial banks can be encouraged to offer such services at lower rates. Loans can be used to purchase basic tools and material for the start.

For the recurrent expenses and finances, the study recommends formation of work-groups. The members can then lend funds to each other without relying on banks. However, for the success of such organisation, the role of a planner in coordinating and management of the contributions becomes necessary.

### 5.3 CONCLUSION

The aim of this study was to analyze the performance of planned and unplanned small scale activities located in two neighbourhoods. The main focus was to identify locations of the activities in areas where full potential could be realised. Also, the focus was on analyzing the performance, output levels, incomes earned and employment levels.

To determine activities performance, it was necessary that the current characteristics of the businesses in the two areas be examined in order to understand their working environment. It was found out that planned activities had more space per establishment than unplanned ones. Similarly, planned activities were better served with infrastructural services, operators were more educated and trained and had wider markets for their products.

Since the analysis of the performance was to be based on the existing mean income, mean output and mean employment, the study assessed these three components. The mean income in the planned activities was KSh. 11,666, while the

unplanned ones earned KSh. 6,061. The mean output was valued at KSh. 37,747 and KSh. 13,145 for planned and unplanned, respectively. Mean employment was 4.8 and 2.5 for planned and unplanned, respectively. Using student's t test, it was established that these differences were significant. Hence, it was inferred that planned activities performed better than the unplanned ones.

The study then sought to establish whether the observed characteristics had any influence on the performance of activities. Using the chi-square test of significant relationship, it was established that space size influenced the three measures of performance. Similarly, infrastructure and particularly electricity influenced output and employment levels. Market area and education were significant in the activities output levels.

From these observations, it was concluded that promotion of the activities requires that space for the location of the activities be provided. This requires for the planners to incorporate the activities in preparation of spatial plans for the low income neighbourhoods. This is necessary given that the activities depend on local markets for their development. There is more output where the activities have wider markets.

Further, the spaces be provided with services and adequate services be planned especially where the activities are, to reduce conflict of landuse that may arise later when the activities increase. Where space and infrastructure are provided such activities will attract more school leavers thus reducing pressure on the formal sector. The role of the activities in economic development will be further enhanced. This calls for an integrated site plans for residential neighbourhoods which consider the activities and the working environment.

## AREAS FOR FUTURE RESEARCH.

Problems facing the performance of small scale activities in planned and

unplanned locations have not been thoroughly investigated in this study. There is need to carry out research in this area in Nairobi and other urban centres. This will enable the formulation of a sound national policy on small scale manufacturing and repair activities.

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## APPENDIX (i)

## UNIVERSITY OF NAIROBI

## DEPARTMENT OF URBAN AND REGIONAL PLANNING.

## QUESTIONNAIRE TO OPERATORS.

1. Name of interviewer \_\_\_\_\_ Date \_\_\_\_\_
2. Name of respondent \_\_\_\_\_ Age \_\_\_\_ Sex \_\_\_\_.
3. Marital status of the respondent
  - a) single \_\_\_\_\_ b) married \_\_\_\_\_
  - c) separated \_\_\_\_\_ d) Divorced \_\_\_\_\_
  - e) widowed \_\_\_\_\_.
4. What is your house hold size ? \_\_\_\_\_
5. What is your level of education? \_\_\_\_\_ Do you have any training for the type of work you are doing? Yes \_\_\_\_ No \_\_\_\_  
(tick appropriate box).
6. Position of respondent in establishment.
  - a) Owner b) Employee c) Relative d) Others (specify) \_\_\_\_\_.
7. List the types of activities undertaken. \_\_\_\_\_  
\_\_\_\_\_
8. Year when the business was started \_\_\_\_\_.
9. If owner, What was your initial capital ? \_\_\_\_\_
10. How much space (in mtrs) does your business occupy? \_\_\_\_\_
11. How and who provided you with the site. a) NCKK  
b) rented from landlord c) City commission d) any other \_\_\_\_.
12. What facilities are available. a) Water \_\_\_\_\_

b) Electricity c) sanitary facility d) drainage.

13. Under what type of structure is the enterprise operating ?

a) open air

b) Corrugated iron shed

c) Wooden structure (Temporary)

d) Any other (specify) \_\_\_\_\_.

14. Is the structure where enterprise located.

a) Rented from the landlord

b) Owned by NCKK

c) City commission

d) any other (specify) \_\_\_\_\_.

15. How many employees did you begin with ?

b) How many employees do you have at present ?

16. How much income do you earn per month from the sale of your products. (Tick appropriate group)

a) 400-2000

b) 2001-7000

c) 20001 -55000

17. Do you receive income from any other source other than the business? State the from where.

18. How much does your business produce per month? \_\_\_\_\_

Give the unit price for each item. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

19. Where do you market your products ?

a) to local consumers

b) To city centre.

c) Others (specify) \_\_\_\_\_

20. How would you describe the demand for the products?