MAJOR FACTORS THAT LEAD TO UNCONTROLLED DEVELOPMENT; A CASE STUDY OF HOUSE EXTENSIONS IN BURU BURU NAIROBI.

BY

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A Thesis submitted in partial fulfilment for the Degree of Master of Arts (Planning).

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Declaration

This thesis is my original work and has not been presented for a degree in any other university.

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Acknowledgements

For this study to be a success, a lot of input has come from many others, for whom I will be forever grateful.

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Abstract

Urban centres are areas of interacting systems, namely the activity system, the land development and the environmental system. This interaction results to, various forms of land use with their resulting impact on the environment. The fact that these are centres of population concentration, people must live and undertake their economic and social activities, in some form of shelter.

Unless this urban growth is managed in a proper manner, uncontrolled urban settlement is the manifestation. Urban developments are expected to take place in a manner that is guided by a proper planning policy and planning regulations. The high incidence of unauthorised structures in the city, drives one to investigate the picture behind the scene, that is, the actors and the factors that bring about this uncontrolled development.

The study therefore, is an attempt to identify the factors that drive developers to initiate previously unscheduled constructions. It also tries to uncover the various weaknesses, characterising the planning authority with the duty of overseeing development in the city. This is because the agency or the institution, seems to be failing in its duty, to guide development in the city. To get things into perspective, the study focuses on Buru Buru estate in Nairobi. It's construction started in the 1970s ending in the 80s, and with its original plan highly distorted, it offered a good case study.

The study applied a methodology, in which random sampling was used for primary data collection. Secondary data from several documents and publications was also extracted.
Several statistical tests using SPSS were also carried out, to try and answer some hypotheses.

Analysis revealed that various factors such as need for more family space, level of education, the quest for more income through renting among others contributed to the problem of uncontrolled development. On a higher level, the City Planning Agency was thoroughly analysed. It was discovered that poor management leading to incapacity of the Council and the Planning Department in particular was to blame for the uncontrolled development. Also undesirable legislation from the Planning Act to the Adoptive By Laws (Building) Order, contributed to the problem.

Due to the above factors, uncontrolled development has continued unabated. This has had on the other hand, untold implications on the planned environment through increased garbage disposal, over utilisation of the sewer leading to blockages and bursts, reduction of open spaces and amenity among others.

To remedy this, various suggestions / recommendations have been put forward. Such include enlightenment/ corrective forums among the various actors involved in development, better management of the City Council in general and Planning Department in particular, and revision of certain Legislation that hinder proper development control.
Table of contents

Declaration ............................................... i
Acknowledgement ........................................... ii
Abstract ................................................... iii
Table of contents ...................................... iv
List of maps ............................................. ix
List of tables ............................................ x
List of figures ........................................... xi
List of plates ............................................ xii

CHAPTER ONE ........................................... 1

INTRODUCTION ........................................... 1

Statement of the problem. ............................... 1
Objectives .............................................. 3
Scope and limits of the study .......................... 4
Justification of the study problem ................. 4
Conceptual framework ................................... 5
Assumptions ............................................. 7
Research Methodology ................................... 8
  Sampling procedure ................................... 9
  Operational definitions ............................... 10

CHAPTER TWO .......................................... 11

LITERATURE REVIEW AND PLANNING LEGISLATION ....... 11

Land use and Decision Making ....................... 13
The objectives of Land Uses .......................... 16
Land Use and Government .............................. 17
Evolution of Planning Regulations .................. 25
History Of Development Control ..................... 33
The Meaning of "Development" in Urban Planning ... 37
# Table of Contents

The Meaning of Development Control .................................................. 41  
Nairobi Planning Authority ................................................................. 42  
Legal Framework of Development Control in Nairobi .......................... 45  

Administration Framework of Plan Implementation in Nairobi ............. 48  
Methodology of Development Control Enforcement in Nairobi ............... 50  
Conclusion ............................................................................................. 52

## Chapter Three

CASE STUDY ............................................................................................. 53

Introduction ........................................................................................... 53  
Buru Buru Housing Estate ....................................................................... 53  
Brief history of the area ........................................................................ 57  
Objective of the development ................................................................ 58  
Development of the area ........................................................................ 58  
Characteristic of the estate population ............................................... 61  
The Kenya Building Code ...................................................................... 62  
Later development of the estate ............................................................ 72  
Analytical framework .......................................................................... 76  
Conclusion ............................................................................................. 79

## Chapter Four

THE SOCIAL ECONOMIC FACTORS THAT LEAD TO UNCONTROLLED HOUSE EXTENSIONS IN BURU BURU. ................................................................. 80

Introduction ........................................................................................... 80

Existing characteristics of the house extensions in Buru Buru. ............... 80
Land use of the house plots ........................................ 80
Construction material ............................................... 82
  roofing material .................................................. 82
  wall material ..................................................... 85
  floor material ................................................... 86
  ceiling material .................................................. 86
Plot coverage ......................................................... 87
Social determinants of uncontrolled development ............. 95
Existing characteristics of developers in Buru Buru .......... 95
The sex of developers .............................................. 95
Education level of the developers ................................ 97
Duration of stay ...................................................... 103
Economic factors that lead to uncontrolled development in Buru Buru .................. 105
Occupation and income level ...................................... 105
Income level of the developers ................................... 106
Conclusion and the implication of uncontrolled house extensions to a planned environment .................. 113

CHAPTER FIVE ................................................. 117

NAIROBI CITY COUNCIL; MANAGEMENT AND DEVELOPMENT CONTROL ................................................. 117

Introduction ......................................................... 117
Characteristics of the local authorities in Kenya ............ 117
Management of Nairobi City Council ............................ 118
The City Planning and Architecture Department .............. 119
Capacity of the department in controlling development ....... 120
  Personnel ......................................................... 121
  Resources ......................................................... 125
Development control and Legislation ........................... 128
Conclusion .......................................................... 134
# CHAPTER SIX

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>135</td>
</tr>
<tr>
<td>Summary of findings</td>
<td>135</td>
</tr>
<tr>
<td>Family space</td>
<td>135</td>
</tr>
<tr>
<td>Income supplement</td>
<td>136</td>
</tr>
<tr>
<td>Institutional flaws</td>
<td>136</td>
</tr>
<tr>
<td>Education level of developers</td>
<td>136</td>
</tr>
<tr>
<td>Inadequate housing in the city</td>
<td>137</td>
</tr>
<tr>
<td>Study limitations</td>
<td>138</td>
</tr>
<tr>
<td>Conclusion</td>
<td>139</td>
</tr>
<tr>
<td>Recommendations</td>
<td>141</td>
</tr>
<tr>
<td>Developers and Professionals</td>
<td>141</td>
</tr>
<tr>
<td>Nairobi City Council</td>
<td>143</td>
</tr>
<tr>
<td>Government policies</td>
<td>145</td>
</tr>
<tr>
<td>Bibliography</td>
<td>147</td>
</tr>
</tbody>
</table>
List of maps

Map 1  Nairobi on the map of Kenya .................... 54
Map 2  Nairobi East extension where Buru Buru is located .................... 55
Map 3  Buru Buru proper in five phases ................ 56
List of tables

| Table 3.1 | Number of dwelling units in Buru Buru | 58 |
| Table 4.1 | Frequency of land use in Buru Buru | 81 |
| Table 4.2 | Roofing materials in Buru Buru | 82 |
| Table 4.3 | Frequencies of wall material used | 85 |
| Table 4.4 | Percentages of floor material used | 86 |
| Table 4.5 | Percentages of the number of occupants for the house units | 92 |
| Table 4.6 | Frequency of the extensions used for the family purpose among other uses | 97 |
| Table 4.7 | A two by two matrix of education levels and development control awareness | 100 |
| Table 4.8 | Response of developers regarding development control awareness | 101 |
| Table 4.9 | Observed and expected frequencies as regards development approval | 102 |
| Table 4.10 | A Four by two cross tabulation of development control awareness by duration of stay | 104 |
| Table 4.11 | Place of work of developers | 106 |
| Table 4.12 | Cross tabulation of income level by development control awareness | 108 |
| Table 4.13 | Expenses per month for households | 109 |
| Table 4.14 | Response on service provision | 113 |
| Table 5.1 | Divisions within the department | 120 |
| Table 5.2 | Approved number of officers in Development control section | 121 |
| Table 5.3 | Divisions and number of officers in Development Control section | 122 |
| Table 5.4 | Approval problems experienced by developers | 129 |
List of figures

Figure 1.1 Factors that influence land use .......... 15
Figure 4.1 Frequencies of ceiling material used ... 87
Figure 4.2 Plot coverage in Buru Buru .............. 89
Figure 4.3 Frequencies of the number of rooms .... 91
Figure 4.4 Distribution of the age of developers .. 96
Figure 4.5 Education level of developers ........... 98
Figure 4.6 Income distribution of developers ....... 107
Figure 4.7 Income obtained from renting .......... 110
List of plates

Plate 1  Some areas in Buru Buru with the least distortion ........................................ 60
Plate 2  A back extension and smallness of the units ................................................. 74
Plate 3  An extension that stand out, in style and design, way far from the original design .................................................. 75
Plate 4  Nature of the uncontrolled development in Buru Buru, and use of road reserve as parking space for tenants ........................................... 75
Plate 5  Mixed land use in Buru Buru ............................................................................. 81
Plate 6  Use of tiles as roofing material ........................................................................ 83
Plate 7  Use of corrugated iron sheets as roofing material ........................................... 84
Plate 8  Concrete roofing ............................................................................................... 84
Plate 9  Most common wall material used ....................................................................... 85
Plate 10  Extent of extra rooms constructed ................................................................ 90
Plate 11  Front yard extension ....................................................................................... 92
Plate 12  Back yard extension ........................................................................................ 93
Plate 13  Back yard extension ........................................................................................ 93
Plate 14  Extent of plot coverage .................................................................................. 94
Plate 15  Extent on plot coverage .................................................................................. 94
Plate 16  Mini apartment with high rent ........................................................................ 112
Plate 17  Garbage heap on the street ............................................................................ 115
Plate 18  Blocked drainage ............................................................................................. 116
Plate 19  Demolition of an illegal structure .................................................................. 127
Plate 20  Demolished unauthorised structure ............................................................... 127
CHAPTER ONE

INTRODUCTION

This study, is focused on development control in Nairobi. Its root cause and its implication to the environment, are some of the main issues tackled by the study. This first chapter, introduces the study, the problem under study, the conceptual framework, and the methodology applied. Chapter two on the other hand, deals with the literature review and the Planning Legislation.

Statement of the problem.

Buru Buru is a fairly large residential estate, in the sprawling Nairobi Eastland area. A few years back this was a well organised neighbourhood, where everything from the housing units to the recreational spots were well laid out.

Recently in the past ten years or so, it has changed to a major activity zone, without regard to its former well planned design. This maybe attributed to the high urbanisation trend in the main cities in Kenya today. Today for instance, Nairobi has a population of between 3-4 million (Karinga for N.C.C, 1993), and all these are people in need of a place to live, and earn their daily bread.

This has led to overcrowding in the residential areas, where all sorts of activities are to be found. They range from the residential activity to economic to recreation and so on. However the main problem here emanates from the breaking of the development regulations by various developers as they convert land for these various uses that were not previously planned for.
The problem in Buru Buru therefore, has come about due to this influx of people in the city. A high degree of congestion has taken place that has disregarded public amenity required in the planning of the urban space.

The problem here is characterised by among others:-

◊ Several house extensions that occupy the open space required for the housing units. They further strain the services provided, since they are rented out to individuals.

◊ Numerous kiosks and grocery shops along the streets occupying the road reserves.

All this uncontrolled development is having a tremendous impact on the environment necessary for human habitation. The planning control and regulation required by the law seems to have long gone.

In order to appreciate the theoretical and practical impacts of urban land use regulatory policies, it is necessary to mention briefly the techniques applied to regulate and control land uses in urban areas. These are in three main categories namely:

i incentives; utilise government power and financial resources to organise land use more effectively

ii management; improvements which remove barriers to the effective use of these incentives and restrictions.
iii restrictions; utilising power to restrain or otherwise direct private land uses and development activity.

The last two above are given more focus in this study whereby the nature and the objective of the two is discussed, as well as the problems encountered in the use of restrictions in land use control and regulation. These restrictions include zoning regulations, subdivision and building regulations and controls. There is a need to investigate how well such restrictions have been put in place, or have not been utilised, in the case of the study area.

Land use control and regulation deficiencies in Buru Buru shows that no efforts have so far been undertaken to address the issue. The institutional structure related to the planning of Nairobi city has yet to get serious on this matter, in order to tackle these land use problems. Development taking place in the study area indicate a haphazard and "ad hoc" change in land use. Consequently, flouting of land use regulations is common and the results have been the proliferation of unauthorized development, without due regard to basic services, incompatible land use activities, over development and environmental degradation problems.

Objectives

In this research study, three objectives were considered namely:

i. To identify the social economic parameters that compel developers to initiate previously unscheduled extensions to their buildings.
ii. To look into institutional weaknesses, that help sustain the developers tendencies, to transform land use according to their own private whims.

iii. To come up with possible courses of action and/or recommendation for (i) and (ii) above

Scope and limits of the study

The extent of the study was limited within the Buru Buru residential estate boundary. The main focus of the study was on the cause of development on land, that is disregarding land use control and regulation.

Within this scope, the study intended to come up with policy recommendations as regards effectiveness and enforcement of development control. The study would also offer ways and means of strengthening the management and operations of the development control agencies, such as the Nairobi City Council. Finally the study would aim at advising and informing the developers on the importance of following the laid down rules on proper development, so as to create a better living environment for all.

Justification of the study problem

The beautiful and the spacious environment of yester years, have been overtaken by the high urbanisation trend in Nairobi today. However, this high growth rate of urban areas seem to have come along with its own rules and regulations, creating an undesirable environment.
The study is justified in that, the cause of this type of development is still hidden. Very few studies have been done in this area. There is great concern, as to why the developers still continue to do the opposite of what is required by the authorities, in charge of proper use of land. The need to find solutions to this problem, takes the upper hand. At the same time, the study would help find ways and means of strengthening the land use control and regulation agencies, so that they would become more effective in carrying out their obligations.

Conceptual framework

Development control is a major operational component of the town planning profession and practice. (Omuta, 1987). The objective of development control in urban areas, is to achieve proper land use, balanced with good living environment. This can only be achieved through the process of proper land use arrangement. The broad goal here is to secure a high degree of economy convenience and beauty in land use.

Vagale (1970) points out that development control could be seen in better perspective, as a legal tool for implementing a town development plan. Thus development control aims to achieve through regulation, growth of a town in a planned and orderly manner. It sets standards and regulations guiding the bulk and the use of structures as well as space around buildings. The need to control urban development have been felt virtually in all the countries of the world. The rationale of this control over land use, is to ensure economic efficiency in the use of space, environmental health, safety and the general welfare. Chapin (1976), has called this as the interest of the local citizens.
Development control at the global level has been defined as legislative granting of permission to commence development and undertaking of action to remedy undesirable and illegal development (Purdue, 1977). From experience however, developers have misunderstood this as a constraint to achieving their private initiatives and profits from development of land (Mc Auslan, 1973).

Evolution of development control in any given country or region has both social, economic and political implications. It thus involves both the community perception and political machinery within which the legal system has evolved in general and that related to development control in particular (Alder 1979). The government, both central and local, is the main agent that controls land use for the best interest of the community.

The local authority responds politically to the community on one hand and on the other it has statutory duties and is limited by its statutory powers, as well as by the finances and manpower it has available at any one point in time. In practice the local governments perform in two distinct ways in seeking to exercise control over land uses; in some aspects it has a promotional role initiating changes, and in other aspect, it has a regulatory role responding to changes initiated by others.

Its promotional role is largely determined by its range of activities as a developer and operator in its own right. The regulatory role is also diverse in its application. It exists in relation to those kinds of land use changes which have been statutorily made subject to approval by local authorities.
The rationale behind development control in urban areas is to regulate development and the use of land for the public interest (Development policy notes, 1973). This means an impartial application of instituted planning policies and guidelines to cater both for individual and the public at large.

Assumptions

The objectives outlined earlier in this chapter were used to formulate the null hypotheses for the purpose of testing the data collected. A general assumption was considered as a guide to the study. It was hypothesised in general that:

Unless institutional capacity is improved, uncontrolled development will most likely continue.

To be more specific, three hypotheses were formulated from this general assumption and these were:

1. Ho. Social economic factors significantly determine the level of uncontrolled development.
   H₁. Alternate

2. Ho. There is no relationship between those developers that consulted the City Planning and Architecture Department for permission, and those who did not.
   H₁. Alternate

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¹ Heap .D (1973), encyclopedia of planning law and practice, vol. 3
3. Ho: Institutional weakness in development control and regulation is the main cause of poor and uncontrolled development

H₁: Alternate.

Research Methodology

To achieve the objectives, both secondary and primary data sources were used. A lot of valuable information was gathered, from the secondary source. It was composed of written material which included published works, journals, republic of Kenya publications, conference reports, newspapers and magazines, and unpublished works such as dissertations and theses. Data was also collected from a wide cross section of public and private records which were found in various libraries, Nairobi City Council files, and the Commonwealth Development Corporation files.

There were two main limitations regarding this data source. The first was the question of measurement. For instance, newspapers offer information one cannot verify and thus rely upon.

Secondly, public records require caution when one is using them. They sometimes tend to exaggerate facts or work, to the credit of the powerful interests or the reporting agencies and underplay facts which would discredit them. Bias is a must, if any reporting agency or institution for that matter, has to stay in business.

The other problem was encountered with public records secrecy. Often there are records which simply are unavailable to researchers.
Primary data on the other hand was gathered through a field survey. A total of 100 questionnaires were administered throughout the area of study, covering at least 33.3% of the area to be studied. This was supplemented by both formal and informal interviews with the City Planning and Architecture Department officials, of Nairobi City Council, administrators, civic leaders and the local community members. A critical examination (through a reconnaissance tour of the area) was done on what has been constructed, and how the structures are arranged in space. Last but not least, photographs were taken to support the research findings.

**Sampling procedure**

The sampling procedure used, had to take into consideration one of the limitations expected in this research study. This is the fact that, developers are not very easy to meet. In a place like Buru Buru, the owners of the buildings or the dwelling places rent them out while they only come once in a while to collect their rent or use agents for that matter.

However, there are still many of them who still live in the main houses, while they rent the rest of the extension constructed, to the tenants. Due to this problem, the most suitable sampling procedure was the simple random sampling. This method of sampling was justified, in the sense that, if a house owner was absent (that is a tenant occupied house), the next house could still be sampled.

The data collected was both descriptively and quantitatively analysed, to test the hypotheses, as well as find possible recommendations to the problem being investigated.
Operational definitions

These definitions indicate the manner in which a term or a concept is used in the study. Some of the important ones are:

i) Developer: Creator of public and private assets for example a building, a plant, a space modification etc.

ii) Development: The carrying out of building, engineering, mining or other operations in, on or under the land or the making of any material change of the use of any building or land (Town and country Planning Act 1962, section 12)

iii) Regulations (land use): Involves the government recognising the spill over effects on urban land and aiming at increasing efficiency and distribution aims such as making land available to all groups in the community and ensuring that the benefits of development go to the community as a whole.

iv) Government (central/ local) The elected central and local authorities which exert measures of control over the pursuit of activities and whose focus in this rests on the law

v) Public open spaces: Open spaces that are left in urban, residential and other land use areas to cater for either amenity, recreation, large scale air circulation or maintain aesthetic value of urban environments.
CHAPTER TWO

LITERATURE REVIEW AND PLANNING LEGISLATION

Unless the process of urbanisation is reversed, unless there are real and immediate alternatives for the millions of migrants and new born, it would be unrealistic to assert that urban settlements even if anarchic should not exist. (Breese, 1967) Settlements are inevitable for most people must live and undertake their economic and social activities in some form of shelter. The implication of rapid urbanisation and the rising demand for housing is inevitable.

Doxiadis (1977) defined human settlement as ".. a territorial arrangement made by man for himself. The settlements result from human action and their purposes are to enhance human survival, better life, happiness and safety."

In today's world, tens of millions of people have settled in the urban areas. The United Nations has estimated that 200 million people had moved into cities in Asia, Africa and Latin America during the 1960s alone. This settlement however is to a large extent occurring spontaneously in totally unplanned manner beyond the authorities charged with the responsibility to regulate land use and construction of buildings (Turner, 1972).

The loss of institutional control over urban settlement and its consequences is seen primarily as an institutional problem and only secondarily as a by product of poor resource base. Policy objectives and the institutional framework for their fulfilment, are too often geared to a sector of society, the
relatively wealthy minority and are economically and culturally unacceptable to the remainder, who are composed of four-fifths of the urban population (Turner, 1972).

Uncontrolled urban settlement in the cities of the developing countries, is also the product of the difference between the nature of the effective demand for dwelling and those supplied by institutionalised society. It is only very recently and only in the most developed countries that new towns have been built completely before occupation (Breese, 1972). In view of this it is unrealistic and economically impractical for governments of developing countries, to insist on urban development planning standards, which do not respond to the local economics and level of development.

If governments are to control urban settlements and developments, policies and procedures must be based on the nature of the local demand. Alternatively, it is impossible to obtain the contribution of the mass of the people on whose collective resources development rest. (Cherry, 1974).

Uncontrolled development may either comprise of conglomeration of dwellings built on land, to which the inhabitants have no right of occupancy or the same kind of development may appear on privately owned land which has been incorporated within a development plan, but the dwellings do not follow any planning or building standards (Kahimbaara, 1975).

In their lay out, an uncontrolled urban development is usually unplanned or not following the plan put down and in most cases entails substandard building structures.
Land use and Decision Making

Many attempts have been made to explain patterns of land use on the basis of one or two approaches. One emphasizes the role of the physical environment. In its extreme form, this approach assumes that land use is determined by the nature of the physical environment in the same way that natural vegetation is related to climate.

The other approach, is based on the assumption that land use is an economic activity and that it is determined by economic forces. Over the last two or three decades, the obvious point that land use is the product of human decision has been given recognition. This recognition of course, does not deny that environment and economics exert strong influences on land use, but it acknowledges that these influences are mediated through the land user, and that they do not operate in a direct or automatic fashion. (Mather, 1986).

Environment and economics can, at the most, 'explain' only part of the variation in land use from place to place, and the failure of traditional economic models of land use to correspond to reality was a potent force leading to an acceptance that other factors are involved. Simple and elegant economic or environmental explanations have been sought by numerous exponents of land use studies, but the harsh realities are that human choice and decision are involved. If patterns of land use are to be understood, then the human dimension must be considered and the making of decisions examined.

In this respect, the question of control and occupancy of land becomes vital. Generally, the person, company or agency owning or occupying the land is able to decide how the land is to be used, but this control is subject to various legal and
cultural constraints, which themselves may be significant factors in the process of decision making.

Mather, (1986) argues that decisions about the use of land involve a multiplicity of factors: the objectives of the land user; the process or means by which he reaches a decision, and the background factors that consciously or unconsciously influence his decision. These include both intrinsic personal and psychological factors, and also external influences stemming from the nature of the land unit and its wider setting. A schematic model showing the relationship of these groups of factors is illustrated in fig. 1.1
Extrinsic

Nature of land Unit

Information
Culture
Environmental Perception
Education
Age
Ability
Personality (factor)

Decision Environment

Perception of Utility
High aspiration
Low Values

Goals

Conscious
Habitual
Rational
non rational

Decision Process

Land Use Decision

The objectives of Land Uses

The basic objective of the land user is utility. It is difficult to improve on an old definition of the concept: utility is 'that property in any object, whereby it tends to produce benefit, advantage, pleasure, good or happiness ... to the party whose interest is considered' (Burns and Hart, 1970: 12.) This definition draws attention to non-material benefits, and it also emphasizes the personal, objective element. Utility may mean different things to different people, and the individual will be guided in his expectation of utility by past experiences and by other personal and psychological factors.

Traditionally, it has been assumed that the land user is a subspecies of Economic Man who seeks to maximise or optimise his profit or income from his land enterprise. Two important points are involved in this assumption; firstly, that the land user optimises, and secondly that he does so in the direction of the single goal of profit. Both these assumptions are doubtful. Simon (1957) argues that it is beyond both the abilities and the desires of an individual, to examine all the possibilities open to him, and hence the individual accepts and adopts the first satisfactory decision that he reaches. He may seek to optimise, but in practice he satisfies. In accepting the first satisfactory solution, he avoids the cost and effort of searching further for an even better result. (In the limited sense of this cost and effort he could be said to be optimising in his search for solutions.)

The significance of this view of the decision maker is obvious. The Actual land use choices, cannot be expected to conform fully with land use patterns predicted or prescribed.
by economic theory and assumptions of profit maximisation. This does not mean that decision making is completely irrational nor that land use choices are chaotic and incapable of explanation.

Rather it means that the rationality of the decision maker is confined within certain limits. It is objective or bounded rationality rather than full rationality.

The other part of Simon's argument, concerns the nature of the decision maker's objectives. Rarely, he contends does man seek a single objective such as maximum profit. Instead, he is more likely to seek several objectives concurrently. For example, he may wish to combine an acceptable standard of living, with an adequate amount of leisure time and an opportunity to devote attention to enterprises or activities in which he has a particular interest. The relative weights of these and other considerations vary tremendously: many public agencies with interests in land have clearly expressed multiple objectives, for example. But objectives are often multi faceted, even in the case of the individual, and they often occur in broad groups or clusters rather than in the form of narrowly defined single goals. Both immediate, specific goals and the broader values which lie behind them combine together in broad orientations.

Land Use and Government

The government of most (if not all) countries, exert direct or indirect influence on land use. (Mather, 1986.) This almost universal influence, reflect something of the ambivalent attitudes held by man towards land, while land may be bought and sold like any other commodity, it is often perceived to have special qualities or attributes, which require or justify government intervention.
Although land may be a commodity, it also has certain characteristics of common property resources, such as water or the atmosphere. The extent to which land is regarded as private or common property, obviously varies depending on the political outlook of the government in question. However, there is usually at least some restraints on private property rights in land, even where right wing governments hold sway. These restraints reflect the basic attachment that man feels towards land, and the fact that he is dependent on land for his sustenance and living space.

One of the fundamental reasons for government intervention in land use, is that individual and societal utility do not always coincide. The type of land use or land management that is optimal for the individual or company, is not necessarily optimal for the community or for societal in general. An individual may be interested in putting up rental building on some piece of land, while the community would prefer the use of that land for recreational purpose.

The relation between individual and societal utility and objectives, is therefore fundamental to the whole question of government influence on land use. The nature of this influence varies from country to country, but in many countries at least three broad types of influence are felt.

At the first and most basic level, the type of land policy pursued is a pervasive influence on the structure of land ownership and on the extent of private property rights in land.
A second level of government influence, consists of support policies directed towards certain types of land use.
Thirdly, government may take direct action in using land at its own hand. In this case, government is the owner, controller and user of land, and pursues objectives that private land users are unwilling or unable to pursue.

The government has to enforce therefore, certain standards to be followed by developers as they transform use of land to various activities. Standards play an indispensable role in influencing the character of environment in urban places. For instance Gibbered (1955), Webster (1958), and Mabogunje (1978) have shown that space standards define levels of comprehensive planning.

Space standards are expressed in five principle units, minimum plot sizes indicate the sizes of housing units within an area. The number of housing units per unit area specify the housing density, while number of persons per room specify occupancy ratio. Finally, the number of persons per acre is a standard for population density.

Another aspect of this dimension at planning stage is that related to technological and performance standards. These define the quality of environment to be maintained within the area in question. They include the quality of services offered, quality of construction and type of materials to be used etc.

Range and threshold standards are also considered and incorporated in plans. Range standards establish limits of lower and upper populations considered, while threshold standard on the other hand, delimit the areas or distance to be considered as part of physical size, requiring development in the plan. Development control is therefore first operationalised, at initial stages of planning. The planner
here applies the concept of planning standards. Particular areas of an urban district are designated for different uses so as to guide developers on what is expected, as they develop the land.

Vagale (1970) and Mc Auslan (1980) have noted that to observe and maintain planning standards as well as planned urban environments respectively, stricter, rigorous and persistent enforcement of development control should be a continuous process. Where the nature of development has profit implications as the one taking place in Buru Buru, the above phenomenon require even greater emphasis.

Webster (1958) puts forward the three main controls, of a physical development plan, namely, legislative, administrative and judicial. They cater for a harmonious development and function as legal devices of executing development control.

However, Mc Auslan (1975) underscore the fact that the framework within which planning process take place, the relationship between law and informal process and the interaction between actors - (the planners, developers, lawyers and politicians) make enforcement of development control encounter judicial set backs. While central government, judiciary and local authorities are levels within which post planning development control is supposed to take place; it is the latter that has the prerogative to enforce.

Within local authorities, development control takes place under the influence of organisation, structure and powers of planning departments. In this context, post plan implementation and development control is enforced by either, a planning officer with specifically delegated powers of by a committee in which a planning officer exercises development control advisory powers, rather than executive powers.
Whichever is the case, for a particular planning authority, the role of development control is vital in plan implementation and therefore all techniques should be applied when considered the future prospects of implementation of a development (Chebkat, 1985.) The nature of development and its control is given its legal status in Kenya in Land Planning Act CAP 303, and in its repeal the Physical Planning Act 1996.

At both planning stage, plan implementation stage and post plan implementation stage, the planning system is faced with serious problems of persistent disjointedness in institutional arrangement governing plan making and development control (Alder, 1979.) The phenomenon is a set back to achieving the intentions of the planning and planned systems.

By invoking the law of Requisite Variety, Mc Loughlin puts the plan implementation notion in perspective. It is the process by which thoughts on some anticipated social order are articulated into physical objects (structures), which if not satisfactory to the society, may set social mechanisms tending to remedy the shortcomings. This is why he further points out that plan implementation is a control activity, which operationalise the designed environment and maintain positive intentions.

Heap (1973), agrees with the above notion, when he emphasizes that implementation of physical development plans in conformity with plan design is the premise within which development control activity take place. Mc Loughlin on the issues, points out further that development control is a consistent measure of difference between actual and intended planned state.
According to Heap (1973) and Hagwood (1978), the above development control is an instrument to prevent bad design. Design in this case mean delimitation of "environments", within which people inhabit and work, enhancement of scale for harmonious relationship between physical structures and within the entire neighbourhoods.

Since non-enforcement of control result in land owners and developers carrying out development in a disorderly manner, the aim of planned urban environment is thwarted. (Vagale, 1970 and Caddy, 1978). It follows therefore that, the aim of preparing physical plans and efforts to implement them for a better society in man made environments, become self defeating (Finney, 1978; Caddy, op. cit. and Davies, 1980.)

Mc Auslan (1980) has summed the above analysis on development control and the resulting urban physical organisation as being influenced by three competing planning ideologies. These are public interest ideology, private interest ideology, and public participation ideology.

The public interest ideology is advocating of obligations to exercise impartial planning and plan implementation notions, favouring the public at the expense of an individual's pursuit and vice versa.

Private interest ideology is advocated by the Law, in the context of private law and prevalent socio economic system. Where private interest ideology is dominant the planning system is weakened in that it is the individual private property owner who is at a higher esteem in relation to public interest. Within this ideology, the character of evolving urban physical structures, dominate activities and eventual
townscape reflect prevalent real estate development tendency. Such is the case in Buru buru today where private interest continues to persist.

Public participation ideology holds that policy formulation, plan preparation and plan implementation processes be the constituents of operationalisation of all development plans. This planning ideology, underscore the necessity of democratization of planning process. A direct involvement of the public in decision making and actual implementation is the theme of this ideology. This involvement should be at all levels of planning, namely; national, regional at a highly localised level. This ideology converges with Vagale's view that "enlightened and spirited community together with prudential political will" constitute a prerequisite to the success of plan implementation.

However there is a conflict between the private interest ideology on one hand, and public interest ideology and public participation ideology on the other. This conflict has been exposed by Chebkati (1985) who has stated that "Planning should not have any business in asking the ignorant citizens on what he should do." He points out that, planning should be left to professional planners who are conversant with theories of planning and techniques, which are not amenable to understanding by ordinary citizen or ignorant politicians.

Garner (1975), however notes that the above planning ideologies exist in theory, but at practical planning and plan implementation level, the first two ideologies dominate contemporary planning policies in operation. Where public interest ideology prevails, it is expected to be complimented by public participation ideology in principal and practice. However, this is rarely achieved because more often than not, the planning decisions have political implications.
The prevalent planning ideology within which development control take place in any single urban centre, is reflected by functional efficiency, relationship and harmony of planned physical environment. A general consideration of dominant characteristics of planned urban environments, planning regulations and socio-economic characteristics will facilitate elucidation of dominant planning ideology in operation vis-a-vis institutionalised physical planning policy (Mwangi, 1988.)

Alder (1979), has shown that failure of public participation interest ideology in planning stage and plan implementation stage, and therefore the entire development control, is due to persistent limited participation of civic leaders. Alder points further that this limitation is attributed to civic leaders part time roles and lack of professional background. For this reason public participation through representative democracy is not an effective method of supervising development control.

The above planning facets as they relate to development control explain the intricate factors that account for the difficulties encountered in development control enforcement, either through issues of enforcement notices punishment by civic courts or physical intervention (demolition) by the planning authority (Telling, 1986.)

To accomplish comprehensive development control, administrative machinery, the seemingly disjointed process of planning, implementation and management of urban environments, require a co-ordinated as well as clear cut policy (Mwangi, 1988.)
Development control as in planning process was evolved and developed in Britain. The aim of development control in the British context, is to empower central government and Local Authorities to prohibit undesirable use of land by private developers / land owners, ensure use of land for projects desirable in the public interest, as well as ensure that immediate and future use of planned physical environment is maintained (Garner, 1975.) As Heap (1978) sums it, any development there-in should be approved.

Evolution of Planning Regulations

In Kenya, town planning statutes were never enacted on the basis to local urban development problems. The existing town planning statutes, were from the British Town Planning ideas during the protectorate and colonial periods respectively, that is from 1895 to 1963, when Kenya attained its independence.

Initially planning statutes adopted for application in Kenya were principally meant to influence use of urban land in Nairobi, and other smaller centres of the time such as Mombasa and Kisumu. The 1903 ordinance was the first landuse statute in Kenya and was instituted two years after completion of Uganda Railway.

This Ordinance was proclaimed in favour of the railway authority, whose administrators were the most powerful in matters pertaining to land development in Nairobi, as well as other centres. The Ordinance was enacted in order to delimit the size and locational characteristics of land under the railway possession.
In Nairobi, the 1903 Ordinance allocated land between the then principal commercial site and factory site to the railway offices, marshalling yards, workshops and warehouses. Today the commercial site marks the eastern zone of Nairobi Central Business District while the factory site mark the western zone of the main industrial area.

On matters pertaining to the railway, the Ordinance deemed all strip of land 5,300 feet wide on either side of the center line to be railway zone; whereas all land within one mile radius of any railway station could be not acquired for any other purpose.

The 1911 proclamation coincided with Simpson Committee Report of 1911 - 12 which recommended zoning of Nairobi residential areas on the basis of racial segregation.

The Government Notice No. 911 of 1914, is considered as the first planning legislation to control development. The notice gave a definition of a plot in urban area. It also specified desired types of building material relationship between buildings, occupancy, accessibility and other provisions related to sizes of structures as well as sanitation. This operated until 1918.

In 1919, another Town Planning Ordinance was enacted. The Town Planning Ordinance 1919, did not have much influence on major physical developments in Nairobi, because existing patterns of land use had been predetermined by the 1903 ordinance and Simpson Report. However, after Nairobi was elevated to a municipal status in 1920, the Town Planning Ordinance 1919 remained the only Town Planning Legislation for 12 years until Town Planning Ordinance 1931 was enacted.
Under Town Planning Ordinance 1919, control of development in other urban centres in Kenya was exercised by smaller Local Authorities during the initial stages of plan formulation (Laws of Kenya, 1926 Vol. 1 cap 84). Section 4 paragraphs (1) and (2) gave power to Local Authorities to be in charge of authorizing planning schemes. Such schemes were prepared to guide development patterns of particular sections of a town.

The aim of planning schemes in Town Planning Ordinance 1919 as shown in section 3, was to ensure "proper sanitary conditions, amenity and convenience in connections with layout and use of the land."

On enforcement of development control in built up areas section 9, paragraph {1 (c)} states as follows:

"... erection, character, occupation and use of building and other structures ... the space about them, the percentage of any plot to be covered by a new or reconstructed buildings - " the number of separate dwelling houses ... allowed per acre (and) the class of buildings"

were to be controlled by Local Authorities so as to regulate the density of buildings for the purpose of securing amenity and / or proper hygiene

An importance of the Town Planning Ordinance 1919, in evolution of planning regulations was the provision of section 9 (2), which gave every local authority power to formulate a set of by-laws for initiation, control and/or execution of Town Planning work, related to it. Such planning by-laws received approval by the Governor in council. Any breach of

2 The Laws of Kenya 1926 Vol. 11 Governor in council was the head of a local authority in Kenya under the Town Planning Ordinance of 1919.
a planning by-law called for a penalty of sterling £ 500. On development control, section 12 of the ordinance it empowered a local authority to "pull down, alter any buildings or other works in an area included" in town planning scheme. Any expenses incurred were to be paid by the offender.

Moreover where building or works contravened a town planning scheme, legal disputes which arose were to be settled by the Governor in council. Under the provision of this Ordinance, Nairobi Municipality was able to establish its own court.

The Town Planning Ordinance of 1931, was enacted to amend the law relating to town planning in Kenya. A town planning office under a Town Planning Adviser, was established under the office of Commissioner of Local Government. By then, Nairobi Municipality's planning functions, were discharged by the municipality town planner due to its status as a local planning authority.

According to the ordinance, the commissioner of Local Government had to be consulted on all planning matters as a custodian of land. This applied to Nairobi, in cases of subdivision of land and acquisition of land for urban development. Under the ordinance, planning authorities had their responsibility to enforcing observance and adherence to a planning scheme. The legislative powers of Nairobi municipality to order or carry out demolition of buildings or structures created or altered without legal sanctions was strengthened. All legal problems arising from plan implementation were arbitrated by Commissioner of Local Government and not as provided in the 1919 ordinance when the Governor - in - Council exercised these powers.

Kenya's Planning legislation in general and that operated in Nairobi in particular, entered a new phase when Nairobi was
chartered on a colonial city in 1950. The period between 1931 to 1950 when Town Planning Ordinance 1931 was in operation, Nairobi continued to maintain physical development patterns that had been set up in motion, during the establishment of railway headquarters.

Nairobi Master Plan prepared by White et al (1948) is an important plan document that represented planning notions, which were to guide future development of the city. The Master Plan for Nairobi was meant to achieve a desire for a British Colonial city in Eastern Africa. In terms of spatial organisation of Land use and envisaged development in Nairobi, the master plan revitalised previous town planning ordinances and Simpson Report which had introduced racial segregation as part of Development control measures, by introducing further segregation in land uses particularly in residential and commercial areas.

The 1948 Nairobi Master Plan was accompanied by formal institutionalization of development control legislation (laws of Kenya 1948 CAP 133). Development control was entirely under District Commissioner. This indicates a direct involvement of central government in urban physical development. Rules and regulations were enacted in CAP 133 and in section 29 it states as follows:

"Any person who may intend

a) to erect a building

b) to make any alteration or repair to a building involving the removal, or re-erection of any external wall which supports the roof ... shall give the District Commissioner notice of his said intentions so to do on a form obtained for the purpose specifying the position ... description ... the purpose and its dimensions."
On open space, it was provided that an area equal to not less than that approved in the draft of planning scheme and signed by District Commissioner should be maintained. An important aspect of Planning Legislation during mid colonial period, was that emphasized on the manner of implementation of planning schemes and procedures in development control.

Laws of Kenya 1948 CAP 133 sections 59, 60 and 61 emphasize that above aspects. Section 59 points out that;

"All buildings within the towns shall be constructed in accordance with the general plan of the town."

A penalty have also been set for buildings erected contrary to provisions of the approved plans, section 61, and says:

"Any person who having obtained the approval of the District Commissioner for a proposed building or work, shall erect such building or work otherwise than in accordance with plans, drawings, description or terms of approved or prescribed by the District Commissioner, shall be guilty of an offence and shall be liable to a fine not exceeding Kshs. 400 and the District Commissioner may serve a notice requiring removal or demolish such building or any part of such building or works within a time to be stipulated by such notice."

A difference exists between the period after 1931 and the period after 1948. In the former case, the Commissioner of Local Government had the most significant influence on Urban Planning and development matters. In the later case, the District Commissioner had most influence on these matters. Here the central government began its very close influence on land use.
In 1950s, Development control was extended and applied in planning of rural villages. This approach to physical planning of rural villages, was however limited in that it was meant to provide suitable emergency villages for colonial administrative purposes in Central Province. However the planning for rural village physical structures, related plan implementation and subsequent control of further development were non-statutory (Dyer, 1958).

Emergency villages were specifically planned to control man-made activities. The lay out plan and design of roads, schools, administrative offices and other communication facilities were aimed at producing a pattern of African dwelling units, that were easily accessible when carrying out security surveillance.

By 1960, land use planning had become more of a central government issue than local government. The legal powers on land use planning were in the office of Commissioner of Lands. Where an urban centre was not a planning authority, subdivision of land and implementation of planning schemes in accordance with a town plan, approval by the Commissioner of Lands was inescapable.

After 1963, planning legislation that has been in application for over 33 years is based on four principle pieces of legislation. First, the local government regulation 1963, and local government adoptive by-laws (building) order 1968, are used by local authorities in controlling planning and development activities related to construction work. Local authorities that have status of planning authorities, formulate by-laws on the basis of these documents.

On development control the Land Planning Act CAP 303 section 10(1) states:

"Subject to the regulation, no person shall carry out development in an interim planning area except with the consent of the planning authority under these regulations empowered to grant consent."

In the Physical Planning Act (1996) part V, 30 (1), it states: No person shall carry out development work in the area of a local authority, without a development permission granted by the local authority.

On non-compliance with planning regulations section 10 (2) emphasize that:

"Any person who carries out development without consent, shall be guilty of an offence against these regulations and shall be liable to a fine not exceeding five thousand shillings or to imprisonment."

Physical Planning Act 1996 part V 30 (2) states that any person who contravenes subsection 1 shall be guilty of an offence and shall be liable to a fine not exceeding one hundred thousand shillings or to an imprisonment not exceeding five years or to both.

Section 15 and 17 of the Act explain the manner of applying for planning permission while section 27(1), 27(2) and 27(3) deal with the manner of development control enforcement.
The above analysis indicate that development control at local authority level is action oriented. It determines types, the use and relationship of building structures, as well as their location in an urban centre. This way, development control guide evolution of urban spatial organisation. On the other hand development control at national level is enforced by the Central (Land) Authority. The Authority role is mainly regulation of the use of land which is converted from agricultural to urban uses.

History Of Development Control

Concern with the form and lay out of towns, dates back to the era of the Greek empire at around 323 BC, during the reign of Alexander the Great (Burke, 1971). The purpose of development control, was to facilitate easy military surveillance for potential attacks and for instant and effective mobilisation of soldiers in case of an invasion. In this same classical period, the Roman developed the grid iron road network as well as a concern for locational relationship between all types of building structures.

After the collapse of the Roman Empire from 5th century BC through the 6th century BC, most of what the Romans had built was destroyed by the invading Saxons, Celts and Normans. A period of dark age, saw an inclination to feudal way of life based on rural areas rather than towns, by the conquering races. This had a devastating effect on further development of towns.

However during renaissance period, stretching from 14th to 18th century, there was a wave of awakening by different human societies in Europe. There was a social awakening in conscience that aroused a need to travel, make adventures and explore near and far in search of knowledge. This social
phenomenon was associated with growth of trade, commerce and a need to exchange ideas as well as innovations. Consequently several towns grew and developed where these activities took place. Building structures to accommodate merchants, travellers, loyal families and other people who worked in such town also grew in number.

Renaissance period experienced an increasing enterprising wealthy communities and ruling families, who had great influence on the manner in which towns grew and took form.

Development control was an important element of town planning, although it was exercised by the above social groups, so as to enhance grander and mobility rather than achieve predetermined quality of urban environment for the benefit of all citizens (Burke - ibid).

Control of development was accomplished at planning stage, so that the needs for aristocracy and other aspects of magnificence in renaissance architecture and garden designs, pre-occupied town planner / designer.

Khamati (1976), has shown that planning was an art exercised by reknown individuals from higher social groups. It was for that reason that planning and plan implementation were carefully articulated, to meet the demands of nobles and middle class, for land use allocation for physical structures and provision for amenities. At the peripheral areas where the poorer groups lived, minimal planning services were received at these early stages of renaissance period.

During the classical and renaissance periods development control was exercised in a non legislature form. Planned urban settlements were therefore viewed as symbols of social achievement and status, rather than a basic requirement for
man, in his habitats, characterised by high density of built up settlements.

Development control trends prevailed during the first quarter of the 19th century. With the coming of industrial revolution, a new "giant disease" of congestion and unhealthy environment drove Philanthropic industrialists in Britain to plan and establish model industrial villages, such as Lanark by Robert Owen, Port Sunlight by William H. Lever and Bournville by George Cadbury. Construction of dwelling, industrial and amenity building structures was done applying great control, based on the perceptions of such Philanthropist industrialists.

In the later years of the 19th century and the first half of the 20th century, the concern for controlling development in towns, became a concern for planners who based their planning ideas on pure environmental and socio-economic considerations. In the period between 1889 and 1928, development control was viewed by Ebenezer Howard as one of the solutions to social evils in urban areas, as it would bring town and country side together. Howard expressed concern in controlled density of people, buildings amenity spaces and travel ways (Mc Fayden, 1933).

Other advocates of controlled development were such as Clarence Perry (1872 - 1944) and Clarence Stein (1882 - 1975), who saw its achievement through evolving and applying the concept of neighbourhood unit. Such planners sought to resolve environmental, and socio-economic problems related to land use activities such as housing, commercial, and industrial.
These industrialists and planners contributed greatly to the replacement of non legislative development control with legislative control. Howard in particular advocated adoption of three salient planning principles in the Garden City Concept. The principles were such as building to a preconceived plan, restriction of growth and public/trustee ownership.

The first two principles have been used as the main themes in planning law (Heap, 1972) (Telling, 1986) and Nairobi City (Planning By-Laws, 1981). The third principle is the basis on which local authorities are bestowed with the responsibility of planning authority.

Practicable legislative development control, based on these principles did not become operational until enactment of Town and Country Planning Act of 1947 in Britain. Garner (1975 (Ed)) has indicated that development control instituted in other countries, does not differ in context and intent from that in Britain. Hence universal target of development control is to ensure a healthy environment against an urge for economic gains by developers in urban human habitats (Collins, 1969) (Ola, 1977).
The Meaning of "Development" in Urban Planning

The meaning of "development" was first exhaustively defined and explained in Town and Country Planning Act 1947 in Britain. Garner (ed) (1985), has summarised the definition thus: development means carrying out of building, engineering, mining or other operations in, on, over or under the land. This summary also incorporated aspects of buildings as they relate to material change and the use of buildings or land.

Mc Loughlin (1973) points out that the above explanation has been used in planning legislation as enacted in Town and Country Planning Act 1947, section 12 (2) of the act define development as follows:

a) Carrying out of building operations, engineering operations, mining and other operations in, on over or under the land.

b) Making any material change in the use of building or other land.

c) The use of a single dwelling unit for the purpose of two or more dwelling units

d) The deposit of refuse or waste on existing dump if;
   i) either the superficial area of the dump is extended or,
   ii) height of the dump is extended and exceeds the level of land adjoining the dump.

e) Display of advertisement on the external part of a building not normally used for such display.

Heap (1978), elaborated the meaning by explaining the physical development and legal attributes of development. According to the explanation, development includes buildings, other structures and the process of erecting them. In this context,
development includes the buildings themselves and the activity of constructing them.

The Town and Country Planning Act 1971 excluded the following in the meaning of development.

a) Internal or external improvements, alterations or maintenance works (not constituting the making of war damage in Britain) none of which materially affects external appearance of the building so treated.

b) Maintenance or improvement works carried out by the local highway authority to, and within boundaries of a road.

c) The making of open streets etc. for the inspections, repair or removed of sewers, main pipes, cables etc. of local authority.

d) Use of the building or other land within the precincts of the dwelling house for any purpose incidental to enjoyment of the dwelling unit.

e) The use of land for agricultural or forestry and the use of such purpose of any building occupied within land so used.

f) In the case of buildings or other land used for a purpose, such purposes of any class specified in the order made by the Secretary of State the use thereof for any purpose in the same class and Town and Country Planning.

In Kenya development has been defined in the Land Planning Act CAP 303 (Revised in the Physical Planning Act 1996 No. 6 of 1996). Part 1 Section 3(a) and (b) show that:
3(a) The making of any material change, in the use of or density of any building or land or the sub-division of any land, which for the purpose of the regulations shall be termed class A development.

(b) The erection of such building or works and carrying out of such building operations as the Minister may from time to time determine, which for the Regulations shall be termed class B development.

It is noted that the reference to density, erection of buildings or work, are meant for maintenance of planned urban environment as far as building structures for both residential and other activities are concerned.

The Land Planning Act CAP 303 also point out that the following do not constitute development:

a) the subdivision of agricultural land into plots of twenty acres or more where no change of use is involved
b) the use of land for the purpose of agriculture or forestry or use of buildings occupied within land so used
c) the carrying out of works for the maintenance or improvement or other attraction of, or addition
d) the carrying out by any competent authority of any works required for the construction, maintenance or improvement of a road, if the works are carried out on land within the road reserve
e) the carrying out of any local authority or statutory undertaker of any works for the purpose of inspecting, repairing or renewing any sewers, water mains cables or other apparatus including the breaking open of any street for that purpose and the installation of services by local authority.
f) the use of any building or land within the curtilage of the dwelling for any purpose incidental to enjoyment of the dwelling.

While the above activities do not constitute development within statutory provisions of Planning Law in Kenya, the Land Planning Act CAP 303 revised in Physical Planning Act 1996, show clearly that the following five activities constitute development:

(a) the deposit of refuse, scrap or waste material on land
(b) the use as two or more of a building previously used as one dwelling constitute class 'A' development

c) the erection of more than one dwelling and/or shop on one plot constitutes class 'A' development

d) the display of any advertisement constitutes class 'A' development.

e) the use of any building or land within the curtilage of a dwelling for any purpose incidental to the enjoyment of the dwelling constitutes class "A" development.

Since a dwelling means a building, or part, or portion of a building used for human habitation in separate tenancy by one family, the factors (b) and (c) above imply that the value of a building and/or plot is enhanced by additional buildings, the erection of additional dwelling units on urban residential plots previously used as one dwelling unit; and this constitutes class A development.

Two terms "operations" and "uses" as used in Town and Country Planning Act 1947 are important in the meaning of development. "Operations" refer to activities resulting in physical alterations of land. These activities have some degree of permanence in relation to the land itself.
The "uses" include activities carried along side or on the land but do not interfere with actual physical characteristics of land. In Kenya, the Land Planning Act CAP 303 omit the terms "engineering" and "mining" but includes with emphasis the effect of increased "density of building" and "the erection of such buildings and works". In essence, however the carrying out of engineering operations, is implied where interference with existing sewer lines, water mains etc. occur, when carrying out construction.

The above analysis, shows how a planning permission application works. Permission is granted, after several considerations are made such as density of building structures and their use. Legally, then, any type of development in either new planning scheme or in already existing such scheme, that is not catered for in planning policies of a planning authority contravene the planning process, and plan implementation regulations.

The Meaning of Development Control

The meaning of development control in Kenya is similar to that given by various authors such as Vagale (1970), Garner (1975 (ed.)), Alder (1979) among others. Essentially, development control is the process by which legal permission, is granted to a person or groups of persons to carry out development, ensuring that such development has been undertaken, according to the plan laid down and legal action for those who implement development, contrary to the provision of such plan.

This meaning upholds the implicit objectives of Town Planning Ordinance 1919 (Laws of Kenya 1926 II CAP 84) and Town Planning Ordinance 1931 (Laws of Kenya 1948 CAP 133 - 134). Essentially therefore the concept of development, is the basis of the meaning of development control as discussed earlier.
Its meaning is functional in relations to urban physical development objectives. The functional characteristics of development control, are delimited by relevant legislative statutes discussed in part, as well as such planning by-laws as may be enacted by a specific local authority.

Essentially, the meaning of development control in Kenya involves applying for permission from a planning authority. Hence any development should only take place after consent has been granted. On the other hand, if a developer carry out development without such consent, then its an offence against the written law. These aspects are therefore some of the basic objectives of development control, that of ensuring that development activities are carried out in accordance with planning policies as provided for in development plans.

**Nairobi Planning Authority**

The Nairobi City Council is a fully fledged planning authority by an Act of Parliament, Local Government Act 1963. The Act gave Nairobi local authority some autonomy in policy and management matters. Consequently, the city authority operates as a corporate organisation. The Local Authority is thus seen as a group of individuals under special obligation, invested by legal power, to act in a number of ways; as an individual to make and grant property, and by contracting obligations, being amenable to sue and being sued.

The range of operation, nature and scope of activities accomplished by Nairobi City Council as a local planning authority are provided for in statutes of law. As a planning authority, the Council is expected to remain as a system that operates within an urban society, so as to provide planning services as well as determine extent of spaces within which human habitation and activities, take place.
Since Nairobi city as a Local Authority is organised on the basis of national legal framework, it operates as a micro political unit within a geographical space. Kandie (1982) has shown that in such a framework, all ranges of decisive policies on development are not independent of wider political implications.

All matters related to planning in Nairobi, must reflect governmental approaches to development planning. Planning policies and decision, are to a large extent democratised through political and technical representation on council committee system. This analysis indicates that Nairobi as a planning authority, does not function as a private corporate organisation. Inspite of the obligation to function as a private corporate organisation, political influences have a bearing on planning decisions and practice (Mwangi, 1988).

Responsibility for planning policies in Nairobi is vested in elected civic leaders. Professionally qualified planners play the role of technical advisors. Usually, unless the planner is able to convince the civic politicians or councillors in the Works and Town Planning Committee, the Local Authority is bound to take irrational decision, and therefore adopt wrong planning policies.

The Works and Town Planning Committee and the planners represents public participation interests. To articulate their roles in urban development matters, both groups should theoretically and practically, pursue matters related to the control of physical environment, so as to enhance the enjoyment of resultant nature of environment by the citizens. The totality of this role, is fundamentally administrative as well as executive. Efficiency with which these two are
accomplished, is an effective tool of determining the deviation from legal framework of planning.

As Mwangi (1988) shows, planning tasks by the Authority, are expected to be accomplished through existing quasi judicial control, based on the legally bestowed power to make planning by-laws, enforce them and take remedial action, wherever non-compliance by a citizen or a group of citizens has occurred. Non-enforcement of the by-laws to all types of development that result from non-compliance with the planning by-laws, is interpreted as administrative weakness of the Planning Authority. Ultimately this trend would result in the prevalence of unplanned urban environment.
Legal Framework of Development Control in Nairobi

Nairobi city as a Planning Authority, has sources of planning legislation from which to make planning by-laws. The first source for its legal power, exist in form of planning by-laws while the second is the Local Government adoptive by laws (Building) Order 1968 and last the Local Government Act 1963, which provide for legal framework, within which not only is the Local Authority expected to work, but also make such by-laws as it may deem necessary.

In Legal Notice No. 256, Local Government Act 1963, part 14 deals with the premises around which Nairobi Planning Authority could institute by-laws, so as to overcome both policy and administrative bottlenecks, which would be a constraint to planning (Kenya subsidiary legislation part 1 Jan - May). On powers to make by-laws section 20(1) of the legal notice states that:

"Subject to regulation 202 of these regulations, Local Authority may from time to time make by-laws in respect of all such matters as are necessary or desirable for the maintenance of the health, safety and well being of the inhabitants of its area of any part there of ... and for prevention and suppression of nuisances therein and more particularly."

a) for controlling any of the things which it is empowered to do, establish, maintain or carry on, and

b) for controlling or regulating any of the things which and any of the persons whom it is empowered by or under these regulations to control or regulate and
c) for prohibiting or preventing by prohibiting any of the
things which it is empowered to prohibit, and
d) for requiring or compelling the doing of any of these
things which it is empowered by or under these
regulations to require or compel.

On penalty of contravention of by-laws section 201 (2) of the
legal notice point out that:

"A local authority, may by-laws, prescribe all or any of the
following penalties which may be imposed for breach of any
by-law made by it ..."

Such by-law made by a local authority have a full force of the
law and are operationalised thus, as shown in section 201 (3)
a and b: Section 201 (3) a "Any by law made by a local
authority under these regulations may ...require acts to or
things to be performed or done to the satisfaction of a
specified person, and may empower any person to issue order to
any person requiring acts or things to be performed or done
imposing conditions and prescribing periods and dates upon,
within or before which acts or things shall be fulfilled and
...

The above statute indicate that the planning by-laws made by
Nairobi City Council empower officers to carry out enforcement
on such by-laws within the legal framework. Moreover section
201 (3)b,

"confers on the officers of such local authority such powers
of inspection, inquiry and execution of works as may be
necessary for the proper carrying out or enforcement thereof."
City of Nairobi Planning By-Laws 1981 section IV reinforce the above statute by showing that:

"Notices, orders and any other documents required or authorized to be served under these by-laws, may be served by delivering the same to, or at the residence, or place of business of the person to whom or some person, or the premises, or person on the premises who can be served by fixing them on some conspicuous part of the premises .."

The above legal powers on enforcement of development control are further reinforced by Local Government Adoptive by-laws (Building) order 1968, which broadens the legal scope within which development control take place in Nairobi. The adoptive by law deals with specific and detailed aspects of the built environment. Section 5 of the adoptive by-laws illustrate this as follows:

Any person who intends to erect a building or materially change the use of a building or part of a building, shall furnish the Council ... with such of the following particulars as are possible

5(c) if the building is alteration or extension to the existing building
5(d) if the building constitutes a change of use or uses.."

Application of by-laws, notices fee, etc. will be such that;

3(1) a person who erects a building, or develops land, or changes the use of a building, or land shall comply with requirements of these by-laws.
It is on the basis of the above legal framework, that development control as it relates to the maintenance of open spaces around buildings, walls and other structures have been catered for in Nairobi City Planning by-laws 1981. The by-laws specify that there should be no more than one building and its opportunities on any plot or sub plot.

With regard to specific plots the following are subject to development control according to Nairobi City Planning by-laws 1981 part v.

i) the roofing over any open space
ii) the erection or extension of a building
iii) the erection, alterations or extension of chimney shaft.
iv) the changing of the use or uses to which land or building is put
v) increasing or reducing the number of dwellings in a building
vi) the carrying out of a drainage work
vii) laying out of an access from a street to a plot
viii) the re-erection of any building or part ... as the case may be, that part of such building has been pulled down, burnt or damaged.

Administration Framework of Plan Implementation in Nairobi

The City Planning and Architecture Department is responsible for all Physical Planning matters in the city of Nairobi. The department is divided into several sections namely;

a) Forward planning section
b) Research section
c) Development control section
d) Landscape design and development section
e) Architecture section
f) Land survey section

g) Policy implementation section

h) Quantity survey section

Forward planning section deal with routine land planning matters such as custody of plan documents such as structure plans, detailed physical plans, part development plans and so on. Planners in this section work very closely with city planning Director in order to put in context issues discussed by Works and Town Planning Committee.

Research section deals with plan design, preparation and research. At the same time, the section perform all architectural design of plans for single building and is also responsible for collecting and storing planning data information.

Lastly, the development control section which is responsible for processing planning applications. Officers in this section scrutinise plan proposals submitted by developers, to determine the nature of development envisaged by the developer/applicant. They also assess all technical details of the plan design, the proposed structures are examined in relation to location of other developments in the city.

Mwangi (1988), underscores the above analysis which illustrates the two principal roles of the City Planning and Architecture Department. First, the planners in the department advice, guide the growth of the city and ensure that the development plan proposals and implementation conform to the city's physical planning policies. The implementation of planning schemes prepared by the department, is accomplished by the planning authority working jointly with private or public planning agencies.
Secondly, any permanent building structure that is proposed for construction, must undergo development planning approval. This applies to both large scale development schemes or single buildings structures by either public or private developers. The role is accomplished by ensuring that, all building designs and plans are approved before actual construction work begins. All approved plans are therefore, deemed to have achieved planning and architectural technical requirements.

Professionally qualified planners working in City Planning and Architectural Department are expected to approve all structural details, architectural designs and aspects related to accessibility and environmental health. Building foundations and their relationship to one another, are constantly appraised at various stages of construction, to ascertain compliance with the expectations of the planning authority or built environment. Plot coverage, open spaces and other amenity services are planning attributes, that are also considered in supervisory work during implementation process.

Methodology of Development Control Enforcement in Nairobi

Area zoning is one of the initial stages undertaken by Nairobi City Planning and Architecture department. Preparation and designation of different types of planning schemes include high, medium and low density activity areas in the city, which include housing, industrial, commercial, recreational among others. This type of zoning, entails preparation of master plan proposals for the entire city.

On the other hand, planning schemes are of necessity detailed plans prepared to reflect policy formulations. It is for this reason that development control, is not only project specific, but is also a factor of both broad and minute aspects of the
built up urban environment. Therefore, the methodology of development control enforcement is at both micro and macro facets of plan implementation.

Development control enforcement at planning scheme level, is expected to be based on broader legal system and planning policy level, of the country and Nairobi City Council as explained earlier. Development control in specific planning schemes in Nairobi, entails actual supervision and inspection of erection of structures in the city, by respective city planning officers. The enforcement of development control at this level takes place after approval of plans and after construction commences.

Development control inspectors, are supposed to constantly visit the site, so as to carry out inspection of the structures at various stages of construction. Mwangi (1988), discussion with planning officers indicated that the following stages require inspection.

i) depth of foundation to reach bedrock
ii) after gravel fillings before slab in cemented
iii) height of wall at window level
iv) complete structure before roofing
v) after roofing.

These stages of inspection, are supposed to ensure that appropriate construction material are used, while space standards, height standards, plot coverage standard, infrastructural and air circulation standards, are maintained according to plan and the building regulations. The inspections are meant to ensure that new development maintain or increase, rather than reduce aesthetic value of the whole environment. The objective value of the whole environment.
Conclusion

In this chapter, it has established that the concern for maintenance of a healthy planned urban environment is a universal desire. Attempts to achieve this social objective, have always been through preparations of preconceived organisation of space, in the form of plans and proper implementation of the same under very strict control.

For the above to be realised legislative statutes, must come to play as a means of enforcing procedure as well as plan requirements. While these statutes empower the planning authority to control development, they have provision which developers can use to undertake development proposals which are implementable as long as they conform to planning requirements. Finally it has been established that Nairobi City Council as a planning authority, has legal provisions and administrative frameworks to control development within the city.
CHAPTER THREE

CASE STUDY

Introduction

In this chapter, Buru Buru housing estate is discussed briefly, its historical background, its location, its objectives and its development to the present. In the same chapter, the way data collected has been analysed (the analytical framework) is also mentioned, to give an overview of what follows in detail in chapter four.

Buru Buru Housing Estate

Buru Buru Housing Estate is one of its kind in the whole of East Africa. It is a vast development in the Nairobi Eastland area, located at about 8 kilometres from the city centre. It covers approximately 220 acres or 85 ha. The location of Buru Buru is illustrated in map 1, 2 and 3.

This estate lies in the west of Outer Ring road, and borders Uhuru and Jericho estates to the west. To the south is Jogoo road and to the north west is Nairobi river. On the eastern flank of the estate lies Umoja estate, a lower middle income owned residential neighbourhood.
Map 1  Location of Nairobi on the Kenya map

Scale = 1:5,000,000

Key:
- District Boundary
- International Boundary
Brief history of the area

Initial arrangements to build the scheme were made by the City Council of Nairobi (NCC), National Housing Corporation (NHC) representing the Government of Kenya, and the Commonwealth Development Corporation (CDC), to extend the eastern suburb of Nairobi.

This neighbourhood was initially planned to be self contained, with all facilities such as the social - cultural and economic facilities. There was hope for local job opportunities so as to eliminate the long journey to work at the city center. However it was developed eventually as a commuter neighbourhood and a dormitory town. Construction started in May 1973, and between that time and 1980, 4710 housing units had been constructed as a single mortgage scheme. (see table 3.1) This makes Buru Buru Housing Development the biggest single housing scheme in Kenya. At that time it attracted attention of the politicians and the public as well, as a reference of success. As stated by one columnist in a newspaper magazine,

"Buru Buru... continues to live to its reputation as an outstanding example of coordinated urban development, and has attracted world wide interest..."

Akwara (1982), likewise reckons that "Buru Buru warrants special attention as a project geared towards the growing middle income group of urban dwellers."

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1. Daily Nation, May 22nd 1980

Table 3.1, number of dwelling units in Buru Buru

<table>
<thead>
<tr>
<th>Phase</th>
<th>Year of start</th>
<th>Year of completion</th>
<th>No. of dwelling units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1973</td>
<td>1974</td>
<td>920</td>
</tr>
<tr>
<td></td>
<td>1977</td>
<td>1978</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>1974</td>
<td>1976</td>
<td>977</td>
</tr>
<tr>
<td>3</td>
<td>1977</td>
<td>1978</td>
<td>882</td>
</tr>
<tr>
<td>4</td>
<td>1979</td>
<td>1981</td>
<td>857</td>
</tr>
<tr>
<td>5</td>
<td>1981</td>
<td>1982</td>
<td>781</td>
</tr>
<tr>
<td>5 ext.</td>
<td>1983</td>
<td>1984</td>
<td>272</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>4710</td>
</tr>
</tbody>
</table>

Source: Mutiso Menezes files.

Objective of the development

The development of Buru Buru, was perceived with a twin objective of providing mortgage and rental houses. The main goal was to provide affordable dwelling houses to the citizens, able to prove that they had a genuine need, having no other residential property and who undertake to stay in these houses themselves with their immediate family. The whole issue rested on the plan, such that the houses were big enough for the residents. The problem of the housing extensions that came later was not anticipated then.

Development of the area

The estate was developed by two separate institutions. The rental housing scheme made of mainly flats, was developed and later managed by the City Council of Nairobi. The mortgage housing on the other hand was developed by the Commonwealth Development Corporation. (CDC)
This is the part of the estate the study dwells on, due to the housing extensions that has taken place and which is directly related to development control in urban land.

The mortgage scheme was developed in five phases over the period 1973 to 1984. All the phases provide single unit structure of relatively homogeneous design; density of about 125 - 250 persons per hectare, which is a moderate density as compared with densities elsewhere. The architects of Buru Buru argued it was quite low;

"Most buildings in London is now carried out at a minimum of 330 persons per hectare... New York is rehousing at about 750 persons per hectare, Singapore is at 2,250 persons per hectare, Hong kong goes upto 4,000 and 5,000 persons per hectare."

Construction was of similar type, walls are made of concrete blocks and roofs are covered with mangalore tiles. All the houses are semi detached either single or double storey (bungalow or maisonettes). These units provide the basic domestic facilities and accommodation. Accommodation provided in phases one and two varies from two to four bedrooms. Phase three comprises dwelling units providing either two or three bedrooms. Phases four and five has either three or four bedroom units. All dwelling units have a lounge, a kitchen, either one or two toilet rooms and shower room as shown in diagrams 3a, 3b and 3c.

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5. Menezes and Partners, in collaboration with the City Council of Nairobi, report no. 2, Planning strategy of action area 1, West of Outerring road, Printing Service limited, Nairobi City Council, 1974, paragraph 8:16
Mains water and electricity are connected to all dwelling units in Buru Buru while the drainage is to the NCC main sewer line. Hot water systems exist in most dwelling units either using electricity or the solar energy. Many dwellings are connected to telephone line.

Basic residential neighbourhood quality was achieved through the provisions of tarmacked roads and drives, street lighting and shopping facilities. The shopping facilities include a centralised shopping centre and corner shops within the phases. A police station was built that enhanced a sense of security in the neighbourhood. Other facilities that are provided in the neighbourhood include churches, schools and recreation.

Plate 1 Some area in Buru Buru that still maintains most of the original plan, note the open space infront of the houses.

Characteristic of the estate population

The estate population had implication to planning. According to the architects who designed Buru Buru, the development by then (1970s and early 80s), was at the price range of £ 1,200 to £ 2,500. Therefore, they argued it would attract occupants from the middle income group. These were likely to be people in white collar jobs, such as executives, bankers, technicians, clerks, among others. They would be educated and relatively young.

Wives were also expected to form a sizeable proportion of the population. It was estimated that 30 - 35 percent of wives would be working in similar situations in town such as secretaries, nurses, among other jobs. Families were then expected to be urban committed. It also meant that all the children in the estate would be born and attend school within the neighbourhood.

Having identified the social character of the expected residents of Buru Buru, the architects then submitted that the community would behave just as any other middle income group in a similar situation. That it would make demands on the provision of social services and require opportunities to express consumer choice.

As shown earlier in the chapter, neighbourhood characteristics were therefore planned on this basis of the population that would inhabit the estate. Maternity, child welfare clinics, nursery, primary schools, were to be provided. This emphasis was expected to change later to the provision of secondary

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Menezes and partners in collaboration with the NCC. Report no. 2 paragraph 3:10
schools, teenage social clubs and others. This was based on the assumption that the population would remain stable.

The Kenya Building Code

The Kenya Building Code governs the planning, design and construction of houses. The Building Code of the Republic of Kenya comprises two district Local Government Orders:

a) The Local Government (Adoptive By - Laws) Building Order 1968, commonly referred to as the Grade I By - Laws.

b) The Local Government (Adoptive By - Laws) (Grade II Building) Order 1968, commonly referred to as Grade II By - Laws.

Since the promulgation of these orders in November 1968, the majority of the Municipal and County Councils have adopted them, and these By - Laws should now govern virtually all erection of buildings in Council areas. For our case, here, we are interested in Grade I By - Laws.

The Grade I By - Laws, cover a class of buildings, of a higher quality standard than the Grade II By - Laws. Special provision is made for high density and low cost residential areas. Councils may designate "scheduled special areas" in such areas relaxed By - Laws no.216 and 227 apply.

Further more, a certain relaxation of the By - Laws covering fire resistance is provided for so called "small houses." A small house is defined as, a one or two storeyed dwelling house of a capacity of less than 570 sq metre. Most houses in the lower cost or mid cost sectors as those in Buru Buru, can be regarded as "small houses."
Users of this Law include those who have to adhere to such By-Laws (Architects, Planners, Builders, etc.) and those who enforce them (Building inspectors and other council personnel).

Some of the standards in Grade I By-Laws include the following:

1) Minimum space around buildings should be 3.05m to the front boundary, or 6.10m including the street. To the side and rear boundary, it should be 3.05m or 1.22m passage for a detached building or 2.44m to one side for a semi-detached building.

2) Dimension of rooms:
   * For a habitable room, the minimum area per person should be 7 sq. metre with the main room at 14 sq. metre.
   * Minimum width should be 2.135m or 7ft
   * Height with ceiling provided should be a minimum of 2.28m or 7.9ft

3) Kitchens
   * Minimum area should be 5.6 sq. metre, 2.44m in height and 1.83m in width.
   * One room dwelling should be 3.25 sq. metre.
   * Covered cooking place for one room should be 1.22m minimum width and 2.135m in height.

4) W.Cs and bathrooms
   * Minimum size should be 1.37 by 0.76, while minimum ceiling height should be 2.135m.
   * For the bathrooms minimum size should be 2.32 sq. metre, while the minimum width should be 1.07m and ceiling height 2.135m.
5) Lighting and ventilation
* For a habitable room, 1/10th of the floor area, increase by 5% should be the minimum area of windows. Permanent vents should also be included.
* For the W.Cs, the windows should also be 1/10th of the floor area with permanent vent of 0.013 sq. metre.

Initially the construction of Buru Buru used most of these standards, but with the coming of the extensions most of these standards have not been used. Especially so because, the developers want to utilise all the space they can find around their homes. At the same time the cost of building strictly following these regulations, not many can afford. For instance such is the case when it comes to the foundation of such structures, due to the nature of the soil.

Diagrams 3a to 3f, in the next six pages, show the typical Buru Buru housing designs. Their initial design, and at the present, showing where extensions are prevalent, especially type 4/1 and type 4/2. The question therein, is that of whether, this size of housing units were enough space for the expected dwellers.
Diagram 3a  Typical plan of a three bedderomed single storey dwelling unit.

Diagram 3b  Typical plan of a three bedroomed single storey dwelling unit.

Diagram 3c  Typical plan of a three bedroomed maisonette.
Diagram 3d Typical plan of a three bedroomed maisonette.
Diagram 3e

Typical plan of a three bedroomed maisonette.
Diagram 3f  Typical plan of a two bedroomed dwelling unit.

The Architects had designed a housing unit for about five occupants. When one looks at these designs, each housing unit do cover at least 40 m², which is enough space for five occupants, or even six. These units occupied from thirty five to forty per cent of the plot, which meant they still had at least sixty per cent of open space. The only extension officially expected was another ten to fifteen per cent, to make it to fifty per cent plot coverage.
Later development of the estate

In a decade or so the once well planned and beautiful estate of Buru Buru, have gradually become haphazard and chaotic. The figures 1d and 1e shown previously show this change. The development taking place at the estate no longer follow the initial plan of the area. Most of this development that has taken place, without proper control is mainly characterised by house extensions.

Normally anyone wishing to construct an additional building to the existing one, applies to the City Council for permission. According to the Kenya Building code, within 30 days of receipt of a duly completed application form and other particulars, the Council should notify the applicant of the outcome. However, due to institutional irregularities, some approval may take as long as one year. Owing to this delay, many developers continue with construction work while awaiting the approval, hoping it will be in affirmation.

Apart from being illegal, buildings constructed without approval are likely to be unsafe for human occupation. The approval process involves ensuring that any structure being erected meets certain requirements; among them the material to be used, and the adherence to a certain laid down plan.

Whether the extensions or other constructions are coming up legally or illegally, they certainly have a bearing on the provision of basic services in the affected area. Initially an estate like Buru Buru was planned for a given number of residents. Likewise the provision of services such as the sewage disposal, water, electricity and garbage collection were meant for a planned population.
In Buru Buru, the average population was placed at five members per household. However, the construction of housing extensions especially, has almost doubled the initial population. Some of these "extra rooms" are occupied by whole family units. This trend has no doubt imposed constraints on all provision of basic services.

The open spaces required by the Kenya Building code has virtually disappeared. This code states that a building shall be so sited as to leave an open space of not less than 20 feet wide in front of the house and a side space of 8 feet wide. In addition, where the building contains more than one dwelling and is designed to have an internal courtyard, there should be provided within such space an area free from obstruction of not less than 350 square feet. These open spaces are reserved for washing and drying clothes, for children to play, food preparation, recreation and talking.

The idea behind open space is rarely interpreted to the residents. They are left to use them according to their needs. The quest for building extensions next to the main house is too intense such that any open space is seen by many developers in terms of how many extra rooms can fill the space. Consequently, open space around the main house, such as the court yard and the back yard have become suitable targets for developers to satisfy their needs.

This uncontrolled development has affected the uniformity of the original plan, which has virtually disappeared. These building extensions come in different shapes, sizes and colour. Some have windows in front, while others have them on the back wall. They are roofed with different materials such as corrugated iron sheets and tiles.
Open space in Buru Buru is almost gone; For instance, children are forced to play on the risky roads, just to mention how uncontrolled development has penetrated the laid down policies.

Plate 2, A back extension characterised by small units

Source: field survey 1998
Plate 3. An extension that stand out in style and design from the others, uniformity of design in the area is gone.

Plate 4. Small apartments as extensions, road reserve is used as parking space for the tenants.

Source, field survey 1998.
Analytical framework

A sample is a portion of the population which is considered representative of the population under study. An important consideration in the selection of the sample, is the sampling frame. This is the list of every person in the population. In our case, we could not use a list of purchasers as our sampling frame. This is because the original purchasers might have sold out to new ones, and our main concern was development on these housing units. Therefore, our sampling frame was the housing units of Buru Buru estate.

Phase I to V have a total of 4710 housing units, and our sample in this study was a 100 units, which is 2.2% of the population under study. Due to the problem of the absentee owners who have developed their units further, we were forced to use the simple random sampling as explained in chapter one of this study. We proceeded to move from one house to the next, and interviewed in only those houses that had extensions and in which the owners dwell.

The rationale of this simple random sampling, was that of interviewing the developer not the tenant. Secondly, finding housing units in which the owners dwell, was very difficult, thus the need for random sampling. Although the exercise was cumbersome, the target, that of interviewing a 100 developers in Buru Buru, was finally achieved. To avoid duplication, the phase and the house number, were put on each questionnaire administered. The following were the number of developers interviewed in each phase:

phase 1 ............. 19
phase 2 ............. 20
Questions such as those pertaining to age, education level, income, plot sizes, number of rooms, among others, were asked. Such social economic issues were analysed using simple descriptive statistics, such as the average means in tables and pie charts. Simple relationships such as education level and income, or the level of income and the extent of development, number of developers and age category, plot coverage and number of plots among others, were described in the form of graphs.

The general assumption of this study was that; Unless the institutional capacity to control development is improved, uncontrolled development will most probably continue. This was conceptualised because of the fact that, in the past ten years or so, the planning agency, has not been able to completely regulate the way land is utilised in the city of Nairobi.

A good case is the allowing of servant quarter construction in Buru Buru. This was supposed to be ten percent of the main house, and yet owners surpassed this regulation or standard. On top of that, some of these developers got planning permission of structures beyond this recommended standard. At the same time, the council has the habit of demolishing structures they claim are unauthorized, and yet immediately the structures are demolished, the owners reconstruct them, and get away with it. For instance the numerous unplanned kiosks, plaguing the streets of Nairobi.
The specific hypotheses of the study were therefore as follows:

1. Socio economic factors, significantly determine the level of uncontrolled development. The sprouting of extensions or the kiosks for that matter can be related directly to some socio economic parameters.

2. There is no relationship between those developers that consulted the City Planning Department for permission, and those who did not.

3. Institutional weakness in development control and regulation is the main cause of poor and uncontrolled development. The example above clearly illustrates this.

To test the second hypothesis, the chi square statistical test was used. Being the test applied to determine the extent to which something happen by chance, it measures whether something observed differs significantly from something expected. The term expected in the definition of the chi square statistic is that we assume no relationship. In the test of statistical significance, one actually tries to disapprove the null hypothesis. If one disapproves it, then there is a relationship.

The first and the third hypotheses were tested using simple descriptive statistics and cross tabulation in SPSS, on the quantifiable data, and qualitative data. This was the data collected in the field such as that of the interview schedules and secondary data. Interviews conducted with officers at the Planning and Architecture Department of Nairobi City Council, the Developers, the Civic leaders among others helped collect data that was used.
The Planning Legislation was also closely examined, to identify any bottlenecks that are facilitating this weakness in the planning agencies.

Conclusion

From what the architect-planner had envisaged, Buru Buru estate has clearly deviated from the original plan. For reasons known to the owners, a lot of extension to the main house has taken place. One can only term it as a deviation from good planning, since it is not in the main plan and thus not catered for by the services and infrastructural facilities provided.
CHAPTER FOUR

THE SOCIAL ECONOMIC FACTORS THAT LEAD TO UNCONTROLLED HOUSE EXTENSIONS IN BURU BURU.

Introduction

This chapter looks critically into the various underlying factors, that have led to the construction of house extensions, previously not included in the plan. It also tries to answer the first two hypotheses laid down at the beginning of this study. Other indirect contributions to uncontrolled development of this manner, that were discovered in the survey have also been sufficiently catered for in the chapter.

Existing characteristics of the house extensions in Buru Buru.

Land use of the house plots

When Buru Buru was established the prime recommended municipal land use was residential apart from those planned for other uses to include corner shops, recreation and commercial among others.

Over the years the development of the area has gone beyond this regulation, since several of these extensions exhibit various commercial activities, from small grocery shops to beauty shops to welding places. As illustrated in table 4.1, a mix up in the required land use has already taken place, proving from the first glance that, the development control in the area is already in disarray. Plots that exhibit commercial and residential land use, has really shot up to cover almost a third of the area.
Table 4.1: Frequency of land use in Buru Buru.

<table>
<thead>
<tr>
<th>LANDUSE</th>
<th>PERCENTAGE IN THE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>71</td>
</tr>
<tr>
<td>Commercial and Residential</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Field survey, 1998

Plate 5: Mixed land use in Buru Buru; commercial and residential use on the same house.

Source: Field survey 1998
Construction material

In the field survey, it was established that not all the extensions have been constructed according to the specified materials in the Grade I By-Laws of the Kenya Building Code. As outlined in chapter three, the Code is extremely demanding and expensive to implement. And possibly, this is one of the reasons behind uncontrolled development.

The fact that approval on a building will not be given, due to the materials used drives developers to evade this critical issue on development. These materials used in Buru Buru, are however of different types. For instance, there is the corrugated iron sheets, clay tiles and concrete slabs all used for roofing in the same area.

roofing material

In Buru Buru, different materials have featured in the roofing, wall construction, floor design, among others. This has its implication in that, the original uniformity of the plan has not been followed by the developers. The housing extensions are of different sizes, shape and colour.

Table 4.2, roofing materials in Buru Buru

<table>
<thead>
<tr>
<th>ROOF MATERIAL</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>clay tiles</td>
<td>93</td>
</tr>
<tr>
<td>iron sheets</td>
<td>5</td>
</tr>
<tr>
<td>concrete slab</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: field survey, 1998
Although the clay tiles dominate as the roofing material in the area as shown in table 4.2 above, they come in different roof designs and colours, thus distorting the former aesthetic view of the estate. However they are easily available and cheap to construct with.

Plate 6, Use of tiles as roofing material, note the use of the road reserve as access to the extensions.

Source, field survey 1998
Plate 7, Use of corrugated iron sheets as roofing material

Plate 8, Use of concrete roofing, and plot coverage of ninety per cent

Source, field survey, 1998
Wall material

Stone dominate as the main wall building material in the area. It constitutes ninety eight per cent, of all wall material used as shown in table 4.3 below. This can be attributed to, the abundance of the building stone from within Nairobi and its environs, which makes it cheap and easier to transport thus lowering construction costs.

Table 4.3, frequencies of the wall material used.

<table>
<thead>
<tr>
<th>WALL MATERIAL</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>stone</td>
<td>98</td>
</tr>
<tr>
<td>concrete block</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

Plate 9, Most common wall material used, is the stone readily available around Nairobi.
Floor material

Sixty four per cent of the floors in the area as shown in table 4.4, were covered with wooden blocks or parquet. Most of the houses in the original design of Buru Buru, were covered in parquet and therefore some developers thought of maintaining this uniformity. This is an expensive construction material, and therefore a big number of the extensions do not have this type of a floor.

Table 4.4, percentage of floor material used

<table>
<thead>
<tr>
<th>FLOOR MATERIAL</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement screed</td>
<td>45</td>
</tr>
<tr>
<td>Wood blocks or parquet</td>
<td>64</td>
</tr>
<tr>
<td>Parquet and cement</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

Ceiling material

The fact that several of these extensions are beyond one storey, concrete and soft board, has been used extensively as the ceiling material for the units. As shown in figure 4.1, eighty six percent of the ceilings are covered with soft board and/or concrete. For single storey extensions, the most common material used is the soft board. Soft board is not as expensive in the market, and thus the most ideal for the developers for their building needs. Timber for the ceiling is an expensive material and thus not used in most of these extensions.
As previously highlighted, the Kenya building code states that a building shall be so sited, as to leave an open space of not less than 20 feet wide in front of the house, and a side space of 8 feet wide for detached housing units. For the Buru Buru estate, the spacing for both the front yard and the back yard were generously provided so.
Buru Buru was designed for a nuclear family, of at least five members. With time however, there was a serious concern among the residents, about the lack of provision for a servant quarter. At the same time, they argued that they had no extra space to accommodate their visiting relatives from the rural areas. Due to this the then Minister for the local government, allowed for plan deviation, and gave permission for the construction of extensions.

This extension however had its own conditions, which were as follows:

a) It had to be a detached servant quarter (dsq).

b) It had to be not more than 20% of the main house.

In other words, this meant that the dsq would occupy another 10% of the plot, allowing for a plot coverage of fifty per cent from the original forty per cent.

c) The dsq was to be constructed only in the backyard.

Since the Buru Buru estate was constructed, this has been the only official gazetted deviation of the original plan that was allowed by the Planning agency, that is the City Council of Nairobi. Therefore, whatever has been going on in Buru Buru as shown in figure 4.2 below, regarding the plot coverage through extension construction, is uncontrolled development. So far most of this development, has not followed the level permissible by the planning authority.
From the above analysis as shown, it is evident that the extensions in Buru Buru have surpassed the fifty per cent mark of plot coverage expected. Again it was evident from the field observations, that many of these extensions occupy both the courtyard and the backyard of the housing plot. This is yet another contravention of the required standards. The reason behind this, is that there are of course other parameters that have led developers to continue with this trend of uncontrolled development.
A normal servant quarter should at least take two rooms. As shown in figure 4.3 below, only thirty two per cent of the extensions were close to this. The rest were from four rooms upwards. Some of the houses including the extension had up to eight rooms which means a three room maisonette on the lower side had at least four rooms as extension.

Plate 10, An extension that exhibits a lot of extra rooms

Source, field survey, 1998
Number of occupants for each household was designed for at least five members, and of course an extra member for the servant quarter, if at all constructed. Data from the field showed that fifty four per cent of the housing units had more than six occupants, as illustrated in table 4.5 below. Some of the housing extensions were occupied by extra households, therefore total number of occupants could be as many as fifteen.
Table 4.5, percentages of the number of occupants for the housing units.

<table>
<thead>
<tr>
<th>NUMBER OF OCCUPANTS OF A HOUSING UNIT INCLUDING THE EXTENSION</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4</td>
<td>10</td>
</tr>
<tr>
<td>5-6</td>
<td>36</td>
</tr>
<tr>
<td>7-8</td>
<td>36</td>
</tr>
<tr>
<td>9-10</td>
<td>13</td>
</tr>
<tr>
<td>11-12</td>
<td>2</td>
</tr>
<tr>
<td>13-14</td>
<td>2</td>
</tr>
<tr>
<td>15-</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

Plate 11, Front yard extension.

Source, field survey, 1998
Plate 12 and 13, Back yard extension, each of the units is occupied by a house hold.

Source, field survey 1998
Plate 14 and 15, various plot coverages in Buru Buru, these are over eighty percent.

Source, field survey 1998
**Social determinants of uncontrolled development.**

**Existing characteristics of developers in Buru Buru.**

The characteristic of a developer, can most likely offer some clues to the reason as to why he or she could be involved in the construction of an uncontrolled structure. Various characteristics were examined as regards the developers.

**The sex of developers**

The sample used for the study determined a sex ratio of almost two to one, in that for every two male developers there was one female developer. A total of sixty five per cent of developers were male while the rest were female.
As illustrated in figure 4.4 above, the average age of a developer in Buru Buru is forty five years, meaning most of the developers are in the middle age. It was established that, virtually all of them were married with dependants. Most of these dependants were both immediate children and/or relative(s). In the various households that were visited, there were both young children as well as teenagers living in the same house, giving the structure and the character of the dependants in various households.
The above analysis offer some insight as to the need for the extension. Most developers claimed that the extension was for the use of the family, since the main house was too small for the whole family. In particular, they said that their teenage children preferred some privacy and therefore, the need for an extension.

Table 4.6, frequency of the extensions used for the family purpose, among other uses.

<table>
<thead>
<tr>
<th>HOUSING EXTENSION USE</th>
<th>PERCENTAGE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family use alone</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Family use and for renting</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Family use and shop</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Renting alone</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Business and renting</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

Source: field survey, 1998

The use of extensions for the family use therefore, constitute a significant percentage of the various uses for these housing extensions.

Education level of the developers.

Education is very important in today's life. The more educated an individual, the higher the prospects of a better payment package.

Developers in Buru Buru are of different education levels, as illustrated in figure 4.5 below. Education has implication in planning and uncontrolled development; for instance, those
with less income, would not mind to supplement it, through renting their extension or carrying out some business.

More education means more knowledge on a planned environment, although this is not always the case in reality. Those with more education and higher resources, were discovered to have more presentable and beautiful extensions. The aesthetics was probably the driving force behind such constructions, although they contravened the required standards.

Figure 4.5; Education level of developers

![Pie chart showing education levels of developers]

- Secondary level 53%
- University level 19%
- College level 24%
- Primary level 4%

Source: field survey 1998
The high rate of low education among the developers, can be attributed to the fact that most of these home owners, acquired their houses in the 1970s and early 1980s. This is a time when the education level and its demand, was still very low in the country.

Most jobs were still available to those with adequate secondary education, especially those with up to form six education. These were able to get the middle income jobs and thus able to afford houses in Buru Buru. The emphasis on higher education was still lax, since the population size was not as large as it is today.

However, twenty years down the line, there has been a big transformation. The higher the education, the higher the pay and the lowly educated of yesterday must find extra means of income, rather than their jobs, if still in employment. Today the need for more income, and more family space is the most probable root cause of the uncontrolled development in Buru Buru and Nairobi in particular.

The level of education, has also served partly as a factor behind the high rate of unawareness in land use control and regulatory system among the developers. As was established in the study area, forty six per cent of the developers were not aware of development control measures. An analysis on this done in SPSS, is shown below (table 4.7), that is a cross tabulation between the level of education as the independent variable, and the development awareness as the dependent variable.
Table 4.7, a two by two matrix of this analysis.

<table>
<thead>
<tr>
<th>row pct</th>
<th>Upto Secondary Education</th>
<th>Upto University Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>col pct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tot pct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>44.4</td>
<td>55.6</td>
</tr>
<tr>
<td></td>
<td>42.1</td>
<td>69.8</td>
</tr>
<tr>
<td></td>
<td>24.0</td>
<td>30.0</td>
</tr>
<tr>
<td>No</td>
<td>71.7</td>
<td>28.3</td>
</tr>
<tr>
<td></td>
<td>57.9</td>
<td>30.2</td>
</tr>
<tr>
<td></td>
<td>33.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Source; field survey 1998.

The pattern of the cross tabulation in the table 4.7 above, shows that education does influence development control awareness. For instance those with secondary education, forty four point four percent were aware, but the rest fifty five point six percent were unaware of development control. On the other hand, those with beyond secondary education, when one looks at the column percentage, sixty nine point eight percent were aware of development control while the rest were not aware.

In another four by two cross tabulation done in SPSS, control awareness being the dependent variable and education being the independent variable, the chi square value is 7.86849 at 3 degrees of freedom, 0.04881 significance level while from the tables the value is 7.815. This shows there is a significant relationship, between education and development control awareness that is it does not come by chance.

On a general level, developers were questioned on development control awareness, whereby, fifty four percent answered positively while the rest forty six were not aware, as table 4.8 below illustrates.
Table 4.8, response of developers regarding development control awareness.

<table>
<thead>
<tr>
<th>DEVELOPMENT CONTROL AWARENESS</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
</tr>
<tr>
<td>No</td>
<td>46</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

A crucial question arises from the above analysis. The question is, how did some developers initiate their construction, and who designed and approved their designs. An answer to this, may probably be the influence and copying of what an individual's neighbour has done.

As one of the officers at the City Planning and Architecture Department said, developers in Nairobi always argue that they are justified to construct without permission because, they always say, "every one is doing it." Thus one of the hypothesis was set to answer this question. An answer to this would further help understand the high rate of unplanned housing extensions.

The hypothesis was; There is no relationship between those developers that consulted the City Planning Department and those who did not. The following is the tabulation:
Table 4.9, observed and the expected frequencies as regards development approval.

<table>
<thead>
<tr>
<th>PHASES OF THE STUDY AREA</th>
<th>THOSE WHO CONSULTED PLANNING DEPT.</th>
<th>THOSE WHO DID NOT CONSULT PLAN.DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase one</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Phase two</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Phase three</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Phase four</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Phase five</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>62</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

Tabulation tables

<table>
<thead>
<tr>
<th>Phases</th>
<th>Devt. approval</th>
<th>Expected freq. (E)</th>
<th>No approval</th>
<th>Expected freq. (E)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>12</td>
<td>7.22</td>
<td>7</td>
<td>11.78</td>
<td>19</td>
</tr>
<tr>
<td>Phase 2</td>
<td>10</td>
<td>7.6</td>
<td>10</td>
<td>12.4</td>
<td>20</td>
</tr>
<tr>
<td>Phase 3</td>
<td>6</td>
<td>8.74</td>
<td>17</td>
<td>14.26</td>
<td>23</td>
</tr>
<tr>
<td>Phase 4</td>
<td>4</td>
<td>7.6</td>
<td>15</td>
<td>11.78</td>
<td>19</td>
</tr>
<tr>
<td>Phase 5</td>
<td>6</td>
<td>7.22</td>
<td>13</td>
<td>11.78</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>62</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phases 1 - 5</td>
<td>Observed (O)</td>
<td>Expected (E)</td>
<td>(O - E)</td>
<td>(O-E)^2</td>
<td>(O-E)^2/E</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>--------------</td>
<td>---------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>Unapprov.</td>
<td>7</td>
<td>11.78</td>
<td>-4.78</td>
<td>22.85</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>7.22</td>
<td>4.78</td>
<td>22.85</td>
<td>3.16</td>
</tr>
<tr>
<td>Approv.</td>
<td>10</td>
<td>12.4</td>
<td>-2.4</td>
<td>5.76</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>7.6</td>
<td>2.4</td>
<td>5.76</td>
<td>0.76</td>
</tr>
<tr>
<td>Unapprov.</td>
<td>17</td>
<td>14.26</td>
<td>2.74</td>
<td>7.51</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>8.74</td>
<td>-2.74</td>
<td>7.51</td>
<td>0.86</td>
</tr>
<tr>
<td>Approv.</td>
<td>15</td>
<td>11.78</td>
<td>3.22</td>
<td>10.37</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7.22</td>
<td>-3.22</td>
<td>10.37</td>
<td>1.44</td>
</tr>
<tr>
<td>Unapprov.</td>
<td>13</td>
<td>11.78</td>
<td>1.22</td>
<td>1.49</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7.22</td>
<td>-1.22</td>
<td>1.49</td>
<td>0.21</td>
</tr>
<tr>
<td>Chi-square</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.37</td>
</tr>
</tbody>
</table>

At 0.05 confidence level, at two degrees of freedom we got a value of 5.991 showing that, what was observed does not happen by chance. The developers tend to copy each other on what they do, such as the construction of unauthorised house extensions in our case here.

**Duration of stay**

Developers in Buru Buru did not all settle at the same time. Some of them came earlier than others, in the 1970s and 80s, while there is still recent settlers, who bought their properties in the 1990s. The duration of stay can lead to more exposure thus more knowledge, and therefore a test was done to find out whether, period of stay significantly influences development control awareness. The cross tabulation table 4.10 below, illustrates this test.
Table 4.10, Four by two cross tabulation table of development control awareness by duration of stay.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tot pct</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>64.1</td>
<td>45.7</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>25.0</td>
<td>16.0</td>
<td>13.0</td>
</tr>
<tr>
<td>no</td>
<td>35.9</td>
<td>54.3</td>
<td>55.0</td>
</tr>
<tr>
<td></td>
<td>14.0</td>
<td>19.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

The analysis above shows a degree of relationship, between the two variables. The more one stays at a place, the more one is aware of what is expected. Developers who settled in Buru Buru at an earlier date, especially before 1980, are aware of development control unlike the ones who came later. Developers who settled before 1980, sixty four percent are aware of development control while the rest are not aware.
Economic factors that lead to uncontrolled development in Buru Buru

Economic factors also feature significantly as causatives to uncontrolled development. The Kenyan economy has not been doing well for some time now, and thus the need to make ends meet. Extensions therefore, have been used as a means to earn that extra income so desired by developers/household heads. The search for more income has thus contributed, to the occurrence unauthorised extension construction.

Occupation and income level

It was established that, most of the developers were in employment and working mostly in the city centre. To understand this, one reflects back to the planning of Buru Buru, whereby it was designed for both commuting to work and a few employment opportunities within the neighbourhood.

From the data analysis, forty five per cent of the developers were in business, while the rest were in employment. Most of those in business are of the older generation, already retired from formal employment, and are now doing some form of business. This contributes yet to the sprouting of the extensions since they serve as business premises or for rental purposes. As shown in table 4.6 house extensions are also used for income generation.

Another reason behind the need for extension, was found to be the long distance to work, especially those who commute to the city centre and do not earn a lot of salary. This has made several of them to construct or to convert their extensions into business premises, such as grocery shops.
Table 4.11, place of work for developers.

<table>
<thead>
<tr>
<th>PLACE OF WORK</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the neighbourhood</td>
<td>33</td>
</tr>
<tr>
<td>City center</td>
<td>63</td>
</tr>
<tr>
<td>Industrial area</td>
<td>2</td>
</tr>
<tr>
<td>City center and neighbourhood</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

**Income level of the developers**

Distribution of income among developers, is a varied one, with the majority of them lying in the Kshs 10 to 50,000 mark as shown in figure 4.6 below. The mean average income for developers was determined at Kshs 54,650 per month.

The marital status was mostly married and with dependants. Considering the average income determined from the sample size, parallel with the deteriorating economy, and the number of dependants, income supplementing would not come as a surprise.
A test was carried out in SPSS, to find out whether income earned had any relationship with development control awareness. The cross tabulation is shown in table 4.12 below.
Table 4.12, cross tabulation of income level by development control awareness

<table>
<thead>
<tr>
<th>col %</th>
<th>Kshs 0 - 50000</th>
<th>Kshs 50-100000</th>
<th>Kshs 100 000-</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>46.8</td>
<td>61.3</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>29.0</td>
<td>19.0</td>
<td>6.0</td>
</tr>
<tr>
<td>no</td>
<td>53.2</td>
<td>38.7</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>33.0</td>
<td>12.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: field survey 1998

The above analysis shows that, the lower the income the less one is aware of development control. Although this might not be wholly true, the fact that a lowly paid developer needs extra income, developing without the knowledge of the relevant authorities would not be a surprise, since acquiring the planning permission is a costly process and time wasting.
Table 4.13, expenses per month for households.

<table>
<thead>
<tr>
<th>EXPENSES PER MONTH IN HOUSEHOLDS (in KShs '000)</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 15</td>
<td>10</td>
</tr>
<tr>
<td>16 - 20</td>
<td>16</td>
</tr>
<tr>
<td>21 - 25</td>
<td>11</td>
</tr>
<tr>
<td>26 - 30</td>
<td>15</td>
</tr>
<tr>
<td>31 - 40</td>
<td>16</td>
</tr>
<tr>
<td>41 - 50</td>
<td>17</td>
</tr>
<tr>
<td>51 - 60</td>
<td>9</td>
</tr>
<tr>
<td>61 - 70</td>
<td>1</td>
</tr>
<tr>
<td>71 - 80</td>
<td>1</td>
</tr>
<tr>
<td>81 - 90</td>
<td>1</td>
</tr>
<tr>
<td>91 - 100</td>
<td>1</td>
</tr>
<tr>
<td>101 -</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

Expenses per month as analyzed fall mostly in the range of ten to fifty thousand Kenya shillings per month as illustrated in table 4.12 above, and this proves to be quite high. Most medium income earners, would therefore have to establish income supplementing modes, to cope with such kind of spending. For instance, renting of extensions is a very common practice in Buru Buru and figure 4.7 below shows rent distribution in Buru Buru.
The average rent for an extension was calculated at KShs 5950. In some cases plot coverage go as far as ninety per cent containing as many as four rental extensions built as small apartments.
At a rate of Kshs 6000 per month per unit, the developer would earn up to Kshs 24,000 per month from renting four of such units. On the higher side, where such extension units go for up to 10,000 four of such would bring in Kshs 40,000 every month. With such figures therefore, uncontrolled extension development in Buru Buru, becomes an easy way to make that extra income. With almost every landlord/developer constructing such units in the area, planned environment becomes something of the past.
Plate 16, mini apartments that fetch as high as 10,000 per month each.

Source, field survey 1998
Conclusion and the implication of uncontrolled house extensions to a planned environment

All this unchecked development in Buru Buru, has had its impact on the planned environment. In this chapter it has been found out that unauthorized structures are a direct result of home ownership, when other felt needs were to be catered for, through the extending of the main house. The unawareness of development control among developers. The realization of how much extra income, one can make through the renting of the extension in particular, among other factors outlined previously, has made the developers continue with this phenomenon unabated.

This construction has gone on, with its resultant distortion of the original planned state. The increase in solid waste production, additional water and sewer connections and reduction of open space are just a few among other consequences of uncontrolled development. These have all contributed negatively, to the aesthetic attributes of the estate among other issues.

Table 4.14, response on service provision.

<table>
<thead>
<tr>
<th>MISSING SERVICES</th>
<th>PERCENTAGE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient sewerage</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Garbage disposal</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Street lighting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Access to the extension</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Source: field survey, 1998
As table 4.13 illustrates above, uncontrolled development has its impact on the environment, such that twenty one percent of the developers, felt it had affected the sewerage system. Thirty percent on the other hand, were more concerned about high levels of garbage disposal.

Poor response on this issue, can be attributed to the fact that the respondents were the developers themselves. They have caused most of the damage, and thus were guilty in giving adequate response, as pertains to this issue. For instance, eighteen per cent argued that all the services were provided for and it is evident that this is not so.
Plate 17, garbage heap on the street due to congestion.

Source, field survey 1998
Plate 18, garbage dumping extends to drains, which lead to blockages and mosquito breeding.

Source, field survey 1998
CHAPTER FIVE

NAIROBI CITY COUNCIL; MANAGEMENT AND DEVELOPMENT CONTROL

Introduction

In this chapter, various aspects regarding institutional capacity (that is, the Local Authority) to control development have been tackled. These are issues that involve the management of the authority, with special reference to development control, legislation limitations, among other factors, that reduce its capacity to effectively operate as a planning agency. The proceeding analysis would eventually, help us answer our third hypothesis, laid out at the beginning of this study.

Characteristics of the local authorities in Kenya

As we saw earlier in chapter two, the legal status of local authorities to oversee the development of an urban centre can be traced as far back as 1919, under the Town Planning Ordinance. In this legislation, the authorities were provided for in ensuring proper sanitary condition, amenity and convenience in connection and layout and use of the land. Section 9 (2), gave Local Authorities power to formulate a set of by-laws for initiation, control and / or execution of town planning work related to it. Other legislations as shown earlier, have come up as well on Local Authorities and town planning.

The Local Governments in Kenya, consist of two parallel systems of authority. Most large urban areas, as is the case of Nairobi, are governed by all purpose single tier authorities.
This authority discharge all the statutory functions of local
government within their administration areas.
The smaller towns on the other hand, are governed by the
counties.

In this system, is the two tier authorities, in which there is
the county council for the whole county or the district. In
such a district are subdivisions of town councils. The powers
and duties of local government are shared between these two
tiers, with the two discharging slightly different mixes of
functions.

The more strategic functions, such as education, major roads,
local and regional planning, are the responsibilities of the
County Councils. On the other hand, the tactical services such
as the secondary roads, street lighting, building regulations,
are discharged by the Town Council.

Nairobi being a big city, is governed by an all purpose single
tier authority, the Nairobi City Council (NCC). It discharges
all the statutory functions of the local government within its
area of jurisdiction.

Management of Nairobi City Council

The Nairobi City Council, like all the large local authorities
in Kenya, is characterised by a very strong developed
departmental structure. This is a parallel of the inherited
English County Borough model. This means that both its bodies
of the electives and the employees, are fairly strictly
divided into committees and departments which are closely
related to a specific function of local government. The
departments to committee relationship is not always one to
one. It is often the case that, one department will report to
several committees, and conversely several departments may
report to one committee. (for example the Finance Committee.)

The responsibility of determining policy and the overall supervision of its execution, is vested upon the elected representatives, who form a single organ of the Council itself. For our purpose we dwell on the Works and Town Planning Committee. It deals with all physical planning and development control matters. Planning policies and approval of plan proposals, are discussed during the Committee meetings held at least once every month.

This Committee, is composed of the Chief Planning Officers, the Councillors and some public appointees. An interview with the field inspectors on development control revealed that the Committee rarely deliberates on the unauthorized structures in the city as often as they should. The approval entry chart that used to exist in the 1980s and in the beginning of the 1990s is no longer prepared. This means that the data on authorized and unauthorized structures, is extremely hard to determine, and they rely on observed estimates.

The City Planning and Architecture Department

The department can be divided into two distinct areas as shown in table 5.1 below. There is the area dealing with planning functions and that dealing with the architectural related functions.

Table 5.1, divisions within the department
Table 5.1, divisions within the department

<table>
<thead>
<tr>
<th>PLANNING</th>
<th>ARCHITECTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Research</td>
<td>* Architecture</td>
</tr>
<tr>
<td>* Forward planning</td>
<td>* Quantity survey</td>
</tr>
<tr>
<td>* Policy implementation</td>
<td>* Land survey</td>
</tr>
<tr>
<td>* Development control</td>
<td>* Landscape design and devt.</td>
</tr>
</tbody>
</table>

Source: Nairobi City Council

Each of these sections should have its related duties, in respect to their establishment. For instance the Architecture section deals with the designing of the Municipality projects. The Survey sections should tackle all the different survey requirements for the Municipality.

On the planning side of the department, a few discrepancies have been found, this regards the mix up of functions, all depending on what the Director in office allocates who. At the moment for instance, the Research section is dealing with lease renewals, and collaborates closely with the Commissioner of lands office. According to the Principle Planner of Forward planning section, there is a poor definition of who does what in the department. For the purpose of this study however, most concentration was given to the sections touching on Development control in Nairobi.

Capacity of the department in controlling development

The first glance of the City Planning and Architecture Department, gives an impression of a big and busy department, due to its size and the people in the offices. Inspite of all this however, there are a lot of shortcomings in the Department.
According to the Planning Officers and the Site Inspectors with whom discussions were held, problems within the Department range from the personnel employed to the resources available for effective development control.

**Personnel**

Manpower is very focal for effective development control. The Development Control section should be employing a total of fifty seven officers as shown in table 5.2 below. According to the officers interviewed, there was a consensus on the size of the personnel being of a fair size to handle the work they are required to do.

Table 5.2, approved number of officers in the Development Control section

<table>
<thead>
<tr>
<th>TITLE OF OFFICER</th>
<th>NO. OF OFFICERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist. Director of planning</td>
<td>1</td>
</tr>
<tr>
<td>Chief assist. planner</td>
<td>1</td>
</tr>
<tr>
<td>Principle development control officer</td>
<td>3</td>
</tr>
<tr>
<td>Senior assist. planner (development control)</td>
<td>6</td>
</tr>
<tr>
<td>Development control officer</td>
<td>10</td>
</tr>
<tr>
<td>Development control assist.I</td>
<td>12</td>
</tr>
<tr>
<td>Development control assist.II</td>
<td>12</td>
</tr>
<tr>
<td>Development control assist.III</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
</tr>
</tbody>
</table>

Source: Nairobi City Council
Development control officers inspect the development in the city and they are divided into divisions as shown in table 5.3 below.

Table 5.3, divisions and the number of officers allocated.

<table>
<thead>
<tr>
<th>DIVISION</th>
<th>NO. OF OFFICERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>6</td>
</tr>
<tr>
<td>Eastern</td>
<td>17</td>
</tr>
<tr>
<td>Western</td>
<td>7</td>
</tr>
<tr>
<td>Demolition squad</td>
<td>10</td>
</tr>
<tr>
<td>By - law enforcement unit</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Nairobi City Council, Development Control Section

Although the personnel was said to be enough, it was established that there are a lot of limitations with the same:

First, fully trained officers within the section and within the whole department in particular, leaves a lot to be desired. The planners with planning degrees in the Development Control section were only two in the development control section. The rest have either diplomas or in job experience as technicians. According to the Principal Planner in the Forward Planning section, the department was not having very well trained officers.

From the post of Assistant Director, to the Development Control Officer, all ought to have at least a degree in planning, but this has not been the case.
Development control officer I, ought to be an undergraduate awaiting further training in planning. It was established however that, these officers are mostly technicians learning on the job, and getting promoted. This shows how unqualified some of the Development Control Officers are, at the Planning and Architecture Department.

Secondly, the work ethics was found to be extremely low. This can be attributed to what one of the Officers at the Department termed as politics and power within the department. The ability of the high ranking Officers and Councillors being able to override the decisions of the junior Officers is very frustrating within the department. This has resulted to the flight of some good planners from the Department, for even lower packages elsewhere. At one time during the discussions at the Department, the Town Clerk, was seen contemplating on a development proposal with a technician in the presence of the Developer, which led the researcher to believe that, top officials do influence the development control procedure.

According to the former Nairobi mayor, John Kingo'ri, he blames the breakdown of services and proper functioning of the City Council departments on greed, that first crept into the Council during the late Mayor Andrew Ngumba's tenure. Also on the politicization of the Chief Officers since the advent of the City Commissions in 1979. He says Ngumba and his Councillors started the ignominious culture of speculation. "A lot of land was given to people for speculation and not development as etiquette required, a habit that deteriorated during Kahara's time to the point where the Council, was dissolved and replaced by a Commission... According to Kingo'ri, development
control, garbage collection and other services faltered around 1977, when greed, speculation and general corruption killed procedures and by-laws that previously governed operations." (Daily Nation, July 15, 1998)

Thirdly, is the issue of recruitment of the planning manpower. Officers can learn on the job what is required. However, without the necessary theoretical and the broad planning skills, not much can be achieved in the field of planning.

Before 1984, when the Employment Act Cap 266 was enacted, all members of staff for the Nairobi City Council were entirely recruited by the Authority. However since then, all the senior technical staff and the graded clerical staff are recruited by the Public Service Commission, on the request of the Local Authority. Job Group for the personnel range from scale I to XIV. All Development Control Officers to the Assistant Director of Planning are in this category. Development Control Assistants I and III, are recruited by the council.

The implication here is that, before a high ranking officer who is not performing his duties right can be dismissed, a lot of procedure is required. Therefore, before such an officer can be fired, he is bound to do a lot of damage to the development control procedure. As the current Mayor of Nairobi sees it, he says

"...city by-laws that emasculate councillors and top officials, need to be reviewed to empower Mayors to hire and fire." (Daily Nation, July, 15, 1998)

This would rid the bad characters who impede or obstruct the correct procedures in the planning department.
Last but not least, is the poor renumeration offered to the officers. This in most cases, leads to other means of earning a living, neglecting the job such Officers are required to do. This factor however, is not a very big problem in the department, since it was discovered that, some planners have left the department for other lower packages elsewhere.

Resources

All the Planning Officers with whom discussions were held, felt that the main problem at the Department and the Municipality in general, was lack of resources on the ground to effectively control development in the city. They cited two major handicaps as regards resources for development control:

a) Transportation for the officers to the sites.

The Inspection Officers argued that the Council has very few vehicles, which are highly on demand from various departments at all times. The Inspection Officer, supervises an ongoing construction, so that the developer keeps within the required standards. Such an inspector usually visits the site on several occasions, since a construction is supposed to proceed in stages.

A card is filled in these stages and cross checked by the inspector. This allows the developer to acquire the necessary certificates in order to complete his/her construction. The officer in charge of supervision in Buru Buru, was quick to point that, it was an expansive area, and with so much construction taking place and without a vehicle, he could not cope.
According to the Principal Development Control Officer, he estimated that only about twenty five percent of the ongoing construction in Nairobi is approved, while the rest is unauthorized. He further argued that, of this twenty five percent paralleled with the City Inspectorate and the resources at their disposal, there was no match

"The resources available for supervision of development in the city, are minute and only about one percent of such development can be inspected."

b) Lack of demolition equipment was the other handicap.

The City Planning and Architecture Department, do not have any demolition equipment. The demolition squad unit said that they are forced to use the garbage collection and road construction tractors to demolish the unauthorised structures, whenever they are pressured to do so. This they said are not very effective in flattening such structures.
Plate 19 and 20, Demolition of an illegal structure using a scooper and the aftermath of that demolition, note the loss of property.

Source, field survey 1998
Development control and Legislation

Normally a developer applies to the City Planning and Architecture Department for permission to develop. The moment the plan is received, it is considered and if seen acceptable, it is then circulated through the key City Council departments as shown in the chart below.

A simplified movement of a development plan application through the key departments of the council.

Source: Adoption from City Planning and Architecture Department
Only after the above procedure and if acceptable, should a developer proceed to develop his property. Usually, this process should take ninety days, but at the moment this is not forthcoming due to too much bureaucracy. Due to such delays developers continue to construct which is against the regulations. The delay in permission granting does not mean that the developer has the right to develop.

Table 5.4, approval problems experienced by developers

<table>
<thead>
<tr>
<th>APPROVAL PROBLEMS</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delays</td>
<td>37</td>
</tr>
<tr>
<td>Costly</td>
<td>6</td>
</tr>
<tr>
<td>None</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: field survey, 1998

The problem of delays in the procedure runs at thirty seven per cent as shown in table 5.4 above, which proves that bureaucracy within the department is too much. Instead of ninety days, some of these applications for development have taken up to and more than a year to be approved. This demoralises developers, who continue to develop due to social economic pressures as seen in the previous chapter.

This procedure has also been affected by other factors within and from outside the department:

i) "Planning permission brokers" is a term that has been coined within the department. These people have infiltrated within the department and in most instances, have been pinpointed as some members of the junior staff.
According to the officers with whom discussions were held, these brokers are even able to forge the planning permission certificate; they usually coax developers to "leave everything to them," and in the process they manoeuvre within the department, and influence some other staff members in acquiring such planning permissions. The sad part is that, although this is known, nothing is being done about it, showing how the department management has deteriorated. This is part of what former Mayor King'ori termed as breakdown of procedure at the Council offices.

ii) Substandard skills in the professional cadre. A good example are the Architects and Surveyors in the private firms. Some of these consultants will never say no to the developers wishes, even when they know too well, that such plans are not acceptable. All this is in the "spirit of competition" in the market, since some private consultants will always take an extra customer.

According to the Minister of Local government, Professor Sam Ongeri;

"Architects are to blame for risky buildings in towns and cities in Kenya." He thus challenged professionals to work in partnership with local authorities and communities, guided by ethics, to make towns and cities safer places to live, work and invest. (Daily Nation Oct.8, 1998)

On top of this, some of these consultants are not aware of the whole range of requirements the department considers for one to get an approval.
iii) Poor information dissemination; just like the way the Health Ministry disseminates information on occurrence of disease, and need for vaccination, the Planning Department should do the same on what is required for proper development in the city.

This is a major limitation, since most developers are not aware of the required planning standards. It was established that, there is an apparent unawareness of development control measures among the Developers. There was also non appreciation of the dangers of illegal structures by both the developers and people who lived in such structures. As shown in table 4.7, this unawareness of development control run at forty six per cent in Buru Buru.

There are different planning regulations, and for proper development of a place they should be followed. In Buru Buru these regulations are supposed to apply but that is not the case. As shown in table 5.5 below, forty six percent of the developers seem to be unaware of what development control measures are.

Table 5.5, distribution of control measures known to developers in Buru Buru.

<table>
<thead>
<tr>
<th>CONTROL MEASURES KNOWN</th>
<th>PERCENTAGE FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoning</td>
<td>3</td>
</tr>
<tr>
<td>Building regulations</td>
<td>18</td>
</tr>
<tr>
<td>Both of above</td>
<td>33</td>
</tr>
<tr>
<td>None</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: field survey, 1998
Lack of such knowledge to development control, results in a lot of unauthorized structures. From time to time the Town Planning and Works Committee meets and at times, though through a lot of public pressure, they pass to demolish the unauthorized structures. This results to a lot of loss to property and resources, which otherwise would not have happened if the developers liaised with the planning department adequately.

iv) Legislation inadequacy, is yet another limiting factor to the full capacity of the Planning Department. To understand this, one starts from the micro level, that is the Development Control section, versus the developers.

It was found out that, developers in Buru Buru are able to construct their extension units within a very short time, of even two weeks. At the same time the by-law underlying such construction has such a long implementation procedure.

The implication is that, whenever a Development Inspector files for a case of an unauthorized structure at the Municipal Court, the procedure for the mention of the case is so long, and in the mean time the Developer completes his construction. When the case is mentioned, the developer is ready to pay the fine. Such inadequate legislation makes developers continue undermining the efforts of the Planning Department to control development.

Analysis at a higher level, show that there is a lot of rigidity on revision of certain by-laws. As we have seen in the previous chapter, a lot of change/dynamism has taken place within the city. A city grows with its own peculiarities, and therefore there is a need to review some of the laws.
House extensions in Buru Buru have come up due to population and economic pressures yet the by-law still requires only one room as the extension. Information gathered from the Research section of the Planning and Architecture Department, revealed that revision on the extension provision within the law was done in 1984. In this revision, developers in high density areas could extend their units by one room with amenity, in which case therefore Buru Buru fall in this category.

Later on an application on the same issue of extensions, for more allocation of space, did not officially go through. Such rigidity thus neglects dynamism, and require to be addressed.

Last but not least is the issue of the Local Authority as Planning agency. The 1919 Town and Planning Ordinance, provided for the Local Authorities to oversee development of urban land. Many decades later, the Local Authority still acts on behalf of the Central Government. This is seen as a major weakness of the law making bodies; autonomy of the Local Authority, has not been given much attention.

The case of the Physical Planning Act 1996, has created institution which is seen to be unnecessarily unconservative. Various Acts such as the Government Land Act, Trust Lands Act, Local Government Act, Housing Act, Land Control Act, have all provided for the central government agencies to be key actors in planning within the Municipality jurisdiction.

In Physical Planning Act, central government agencies and offices will continue to have immense power in the day to day planning matters. Harmonisation of the role of policy development by the central government agencies and municipal planning by the local government institution is still very poor.
Section 4 in part 2 of the Physical Planning Act 1996, provides for the Minister for the time being in charge of planning, to appoint the Director of Physical Planning and Planning Officers under him. According to section 5, the Director will prepare all the regional and local physical development plans. He should also formulate national planning policies, initiate and undertake studies and research into matters concerning physical planning.

He will also advise Commissioner of Lands and Local authorities on use, management, lease administration, subdivision, amalgamation of land, with a view to secure control of development. This reminds us of the "big hand" of central government in controlling land use matters.

In essence the Minister of Local Government and the Director of Physical Planning, have a lot of power over the Local Authorities. This has left Municipalities such as that of Nairobi incapacitated to fully plan and control activities within their jurisdiction. Lack of autonomy means resources most needed for carrying out development control among other responsibilities of the Local Authority, are not available, or are not adequate. The central government still continues to take a mammoth share of the revenue generated by the Local Authority.

Conclusion

From the above analysis, we have seen that a lot is still desirable for effective development control. The Local Authority being the planning agency has a lot of handicap from within and from outside. This helps us to answer our third hypothesis; that is, institutional weakness (the planning agency), significantly help to preserve uncontrolled development.
CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Introduction

As a concluding chapter of this thesis, the contents therefore constitute a summary of the important issues derived from the analysis of the data, contained in the two previous chapters. There are recommendations on a more balanced development control, in the light of a dynamic urban setting. Lastly we have a final conclusion that reflects the whole study.

Summary of findings

The study set out to find out, the underlying factors that lead to uncontrolled development. Various socio economic and institutional factors were examined, with several of these having a contribution to the spread of unauthorised structures in Buru Buru. Unauthorised housing extension in Buru Buru, can therefore be attributed to the following:

i) Family space

Although what was originally designed was perceived enough space for a family of five, this did not go well with the residents in the later years. The residents first saw the need for a servant quarter, which was not previously provided for. Later, the presence of bigger households and teenage children, necessitated for the building of extra rooms.
ii) **Income supplement**

With a dwindling economic growth, few jobs and underemployment in the country, renting has become a very fashionable way of earning that extra income. For those who own some property in the city, and cannot afford the financial overhead, as is the case with some of the Buru Buru home owners, extension construction for renting is not a very hard decision to make.

iii) **Institutional flaws**

The Nairobi City Council, as the city's main planning agency has its share of contribution to the problem in the city. It has been unable to adequately formulate or implement proper development control measures. As discussed in the previous chapter, the performance of the agency leaves a lot to be desired. The problems contributing to poor development control, run from personnel to legislation. The duty of the City Planning and Architecture Department to oversee development in the city, has been eroded and reorganisation within is necessary.

iv) **Education level of developers**

This is not only the formal education gotten from the institutions of learning but also what one can call enlightenment. It was established that not many developers in Buru Buru are aware of what development control entails, and this proves a point in the continued construction of unauthorised structures in the area.
One of the hypothesis tested, showed that copying what a neighbour has done, that is, constructing an extension because ones neighbour has done so, was very common in the area. Most developers are not aware about a planned environment, and see open spaces as land wasting, and therefore should be filled up with stone.

v) Inadequate housing in the city

There is a high demand for these housing extensions, since tenants book them during construction, and occupy them immediately they are completed. This shows the urgency of shelter provision in the city, thus these extensions are in a way filling the gap of inadequate housing.

Extensive construction of unauthorised structures have resulted to several effects which include the following:

* Domestic solid waste disposal has caterpulted to unmanageable heights. The more the extensions the more the dwellers, in most of them are living whole family units, who consume and dispose like any other. This has led to several garbage heaps within the neighbourhood, that spread to the streets and into the drainage. The consequence, is poor health and amenity respectively.

* Poor sewerage system is the other consequence. Extra water connections means more water consumption and fluid waste. This ends up overburdening the already laid down sewerage system resulting to blockages and sewer bursts.
Reduction of open space and air circulation is yet another consequence of unplanned constructions. Foot paths designed behind the houses in Buru Buru, have been blocked reducing air circulation on the ground. Multi storey construction on the other hand, has greatly affected the air circulation above the ground. This denies the residents the amenity they should enjoy.

Extra occupants means more people are living in an inappropriately designed and located structures, especially in the view of ventilation. At the same time, construction on the open spaces, have left the children with no ground to play on, exposing them to accidents on the roads.

Study limitations

The study suffered several setbacks. First was the issue of information, especially so with the secondary data, such as that from the City Planning and Architecture department. There was a lot of anticipated crucial information lacking from the department. For example the approval chart, which helps one determine the number of unapproved structures and the number of approved structures thus the level of development control. Works and Town Planning Committee meeting minutes, were also unavailable to the researcher.

As regards the primary data collection, the major problem lay with the cooperation of the developers. Most of them were not enthusiastic with the research study. Most probably because, this was a time of very serious community uprising against the uncontrolled bars and discotheques within the area that were disturbing their peace at night time.
Another problem, regarded the issue of finding the developers at home during the administration of the questionnaires. This forced the interviews to be conducted late in the evenings and during the weekends, which was extremely time consuming and costly.

Last but not least, was the issue of finance. Research is costly affair, and therefore the limitation of finance also led to limitation of the study. However with the little finance available, the research was successfully completed within the time limit.

Conclusion

The study set out to achieve three objectives:

a) To determine socio economic factors that lead to uncontrolled development

b) To determine the institutional weaknesses that necessitate uncontrolled development.

c) To come up with recommendations, for a better city.

In the first objective, several factors were considered that necessitate uncontrolled development. Also various chi square tests were done, to verify the major factors that contribute to the problem.

The first set of factors was the construction materials used, whereby, it was established that several of them are readily available and not very expensive. These were the building stones, roofing material and the flooring material and the ceiling materials.
The second set of factors were the social factors such as sex, age, duration of stay and education level. Chi square tests were done such as, education by development control awareness and duration of stay (exposure) by development control awareness. Results from these two proved positive, that is those with more education are to a level aware of planning regulations. And the same applied to developers who acquired properties earlier, unlike the recent ones.

The third set were the economic determinants, which included the occupation and income, rental income and expenses per month per household. A test was done regarding income and development control awareness, whereby those with more income, were found to be more aware on planning issues than those with less income.

This is a debatable issue since, the response of some developers is not always right. However, for such outcome, one can attribute it to the need for more income among lesser income households whereby, a developer/household head would disregard development control implications, to set up that rental building, to earn more through leasing.

The second objective was to determine the flaws of the City Planning agency, thus the prevalence of uncontrolled development in the city. From the analysis done, ranging from the management of the institution to the existing By - Laws, a lot of development goes on unnoticed in the city. The previous chapter has the details of the various factors, limiting the Nairobi City Council and the Planning Department in particular, from performing its duty.
The last objective regarded, possible courses of action and/or recommendations for the first two objectives. These are tackled in the next few pages.

Recommendations

Developers and Professionals

The role the developers and professionals play in transforming land is a critical one. The extent and the nature of this transformation, depends on the needs of a developer/or professional, and this could be negative or positive. Thus is of course, in the light of how well the developer/or Professional follows the laid down rules and regulations on development of land.

The high prevalence of different forms, shapes and sizes of the house extensions in Buru Buru, shows the varied perception developers/or Professional have about the environment in which they live. The violation of the laid down planning standards, shows that communication with the relevant authorities at this level is low, and nothing is being done about it.

What then ought to be done, is probably, regular gatherings of all the concerned parties. These are the Planners both private and those from the planning agency such as the City Council, the Developers, the Architects, the Surveyors and other related professionals. This would create a forum, that would discuss and deliberate on problems related to city planning in general, and those related to development control within the residential areas such as Buru Buru. Such forums would for instance, engage in possible revisions to plans and how such revisions would be implemented on the ground, so as to maintain acceptable environmental quality.
Many developers only consider profits as their driving goal, at the expense of the environment. Knowledge on planning issues and standards can easily be attained at such forums, and thus enlighten developers on the importance of a planned environment in due regard to health, safety, amenity among other considerations.

Professionals in the private practice such as the Architects and the Surveyors play the role of designing and advising the developers on their intended development on a piece of land. It is evident, that several of them go ahead to encourage developments even when they know very well, that such designs are unacceptable.

A method ought to be devised, of eliminating or disciplining such misleading professionals; probably through their professional bodies such as the Architectural Association of Kenya, and the Kenya Institute of Planners.

Last but not least, the Architects, the Surveyors, the Quantity Surveyors and the Planners, through their professional bodies, should hold regular discussions related to the current development control problems and the extent of unauthorised developments in the city. From this, they should then regularly publish such issues in their journals, and also avail such information to the City Council, so that prompt action can be taken, for a better city development process.
Revelation about little discussion on unauthorised structures in the city, calls for a more aggressive Works and Town Planning Committee, which deals with such matters. The problem with the committee, is basically the fact that, some members have vested interests which makes the meeting agendas overlook some important issues. If this committee is to perform its duties, this problem requires urgent address.

Data on development control seems to be missing. This in turn makes the council rely on observed estimates, which is not very reliable as a measure in itself. The absence of quantifiable data on authorised and unauthorised units has encouraged the ignorance of the issue in the Works and Planning Committee meetings held at least once every month. The preparation of the approval entry chart, should therefore be reinstated for it has since been side lined at the Development Control section.

The Works and Town Planning, together with the Housing Development Committees of Nairobi City Council, should work together towards a policy of action, that would work towards revitalizing development control.

Officers in respective departments, are supposed to work together, so as to share information and ideas, for constructive resolutions. However, for this to work, an overhaul in the council's management is necessary to reduce friction among different departments and committees, for them to liaise and work with each other.
As regards the personnel in development control;

i) Recruitment of well trained officers is crucial for all the technical jobs. Jobs should be offered to those who competitively qualify, unlike unnecessary promotion of the technicians, who tirelessly lobby for such posts.

ii) Within politics and power in the Planning Department, is a big element that helps to frustrate the efforts of good planners. This issue has driven away those planners dedicated to their work and therefore a change within the department is necessary. The corrupt officials should be systematically phased out, to reinstate proper work ethics in the department, as well as in others.

iii) The 1984 Employment Act, paves way for recruitment of the grade personnel, by the Public Service Commission. Although this was put in place to reduce the favouritism within the Council, for example on vacancies, among other things, it still has its disadvantages.

Top officials who overstep their duties, are unnecessarily difficult to discipline, since they are only answerable to their bosses at the Civil Service Commission. A revision on this Act, on the side of the Local Authorities, especially on the disciplinary of such officers would be a big relief. For example the Town Clerk of a Municipality, has powers that go beyond those of the Mayor.

iv) Resources is another handicap cubbing the City Council. Basic necessities such as transport for development control inspectors, demolition equipment among others are lacking for proper development control.
The need for more autonomy in controlling the revenue collected by the Local Authorities, is necessary to enable them afford such necessities. Proper management within the Council operations mentioned earlier, would also come in handy if such revenues were to be realised.

**Government policies**

Any government policy acts as a general guide, on what is done within a particular country. When one looks at our case here, then two policies come to mind. That is the land policy and the housing policy.

For instance, owning land in the city is a very costly endeavour especially so, where that land is properly serviced. The land policy has not catered for the poor people, or in other words, those who cannot afford that land, even the middle income.

For those who own the small Buru Buru plots, his/ her lifetime savings can then only be redirected to the same plot, if with an intention of investment in a building, and thus uncontrolled development. This being so because one wants to invest in a building, but since he or she cannot afford land else where, extension of the main unit is the solution. And like its mentioned earlier, such structures are rented out as income generators.

This brings us to the other question of the housing policy. This is a policy that has not had direction for a long time in Kenya. The haphazardness of this policy, has made housing provision in Kenyan towns "a nightmare" since the majority of the poor are still living in the slums, while those who can at least afford a decent shelter now live in these several
uncontrolled structures being put up in the cities. The developers on the other hand have seen an easy way of generating income.

Building Code (Adoptive By - Law GradeI) this is another area of contention. As we saw earlier, these are very demanding and expensive to implement building standards and therefore uncontrolled development is inevitable. There is need for extra thorough revision of these regulations, so that even those with little income, can construct their buildings within the stipulations of the Law.

Proper redirection or formulation of visualistic policies such as the ones above is the only way proper land use planning can take place. Therefore the Land Policy as well as the Housing Policy, require a thorough overhaul for a better planned environment.
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**Government Publications**


Appendix 1

UNIVERSITY OF NAIROBI
Faculty of Architecture, Design and Development
Department of Urban and Regional Planning

Title of Research: Major factors that lead to uncontrolled development; A case study of house extensions in Buru Buru.

Personal Details
Name of interviewee: ......................................
Sex: male or female: ......................................
Age in years: ...............................................
Marital status: .............................................
If married, how many children/dependents ...............................................
Occupation: business/employed: .............................................
Education level: .............................................
Date of the interview: .............................................
Municipal recommended land use: .............................................
Time of occupancy on the property: .............................................

Social Economic Issues
1. Place of work: .............................................
2 a) What is your average income? .............................................
   b) Is your income satisfactory? yes or no .............................................
3. If no, how do you supplement your income? .............................................
4. What is your average income? .............................................
5. Is your house extended? yes/no .............................................
6. If yes, is the extension rented and for how much? 

7. If no, what is the extension used for, commercial/social / family? 

Housing and development control issues

1. The size of the plot 

2. The type of the building. 

3. The no. of rooms including the extension. 

4. The total number of occupants including the extension. 

5. Building materials used:
   roof 
   ceiling 
   walls 
   floor 

6. Plot ratio expected? 

7a) What is the procedure of extending the house. 

7b) Does one have to seek authority/approval? yes / no. 

8. If no who did and why?
9. Does your house extension have all the required services? ..........................................

10. If no which ones are missing .........................

General

1. What do you consider as a serious problem in this area? .............................................

2. Do you encounter any obstacles whenever you want to carry out any development? If yes, which ones? ....

3. Whom do you consult in case of plot boundary disputes? .............................................

4. Are you aware of legal (land use) control measures that affect this area? yes/no ..........................

5. If yes which ones are you aware of:
   . zoning ..........................................
   . building regulations ..........................
   . sub division regulations ..........................
   . other ..........................................

Thank you.
Research topic: Major factors that lead to uncontrolled development; A case study of house extensions in Buru Buru Nairobi.

Interview guidance/schedule for the City Planning and Architecture Department, Nairobi City Council

Administration section

1a) How many officers are employed in the Development Control section?

b) How are these officers organized to handle the business of development control in the whole city

2) How do you go about with the recruitment of these officers?

3) Does the department attract professional planners for employment?

4) What is your view on the working conditions in the Department of Planning and the Council in general?

Forward Planning Section

1) How do you go about Planning for the City?

2) What are your views on uncontrolled development?
3) What does the Council intend to do, to avoid the effects of high density unplanned structures in the city?

4) What do you think are the major limitations of land use regulations and control within the present Legal framework?

**Development Control section**

1) What is the state of Uncontrolled Development in the city, and Buru Buru in particular?

2) Do the developers and the community in general recognize the existence of legal land use measures that affect them?

3) How do you intend to deal with the developments that have already taken place, and those yet to take place without the necessary approval?

4) How do you go about the development approval procedure?

5) How long does it take for plan approval?

6) In event of a developer coming up with a development proposal that does not conform to the control measures, how do you handle the issue?

7) Do you still prepare the plan approval chart?

8) In your view, is the plan approval procedure working in the department?

9) What are the major handicaps to the development control in the city?
Research section

1) What are the various revisions that have been done regarding the planning of the city in general and Buru Buru in particular.

2) Do you undertake research on possible land use changes?