

**FACTORS AFFECTING HOUSE IMPROVEMENT IN THE
INFORMAL SETTLEMENTS. A CASE STUDY OF
MANYATTA SETTLEMENT IN KISUMU MUNICIPALITY-
KENYA.**

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BY

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**A THESIS PRESENTED IN PARTIAL FULFILMENT FOR
THE DEGREE OF 'MASTER OF ARTS IN HOUSING
ADMINISTRATION' IN THE DEPARTMENT OF LAND
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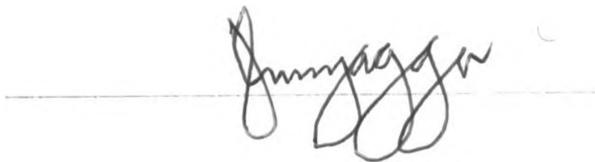
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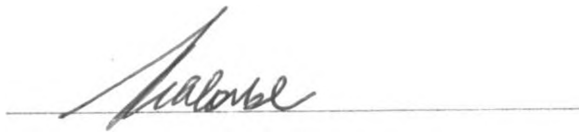
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This thesis has been submitted with my approval as the University Supervisor.

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DEDICATION

For my late Father and Mother

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I am blessed with wonderful friends who have never denied me their time, their advice, their help or their support. I am grateful to them all.

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Notwithstanding that the responsibility for any error and omission remain entirely mine

ABSTRACT

Review of the formation, growth, magnitude and deteriorating housing conditions of the informal settlement in other parts of the World and in Kenya in this work shows that in the years before 1960s the phenomenon of informal settlement was viewed negatively resulting to hostile responses from various authorities towards the settlements. These responses included demolition, relocation and provision of public housing in the name of public health, eradication of crime and havens for criminals and public necessity.

As the public housing programs were failing to meet housing needs of the poor due to their inappropriateness in terms of cost and standards and the inability of the governments to provide housing for everybody, it was discovered that the housing in the informal settlements were gradually improving overtime. Beginning in the 1960s, the attitude towards informal settlements started shifting from hostility to admiration of the abilities of the people to improve their own housing conditions. Many researchers of this time stated that the poor only required security of tenure, basic infrastructure, no interference from building and planning regulations, accommodation of their lifestyles and the mobilisation of their full participation.

This latter attitude led to the development of housing improvement programmes which have been implemented in several third world countries since the 1960s and which began in Kenya in 1978 under the second urban project. The success of this program in Kenya has been questionable.

This research has investigated the factors that affect the ability of the people to improve their houses and found out that apart from land tenure security, infrastructure and building and planning regulations, there are other factors which are equally important in determining the ability of the people to effect improvement. The study shows that when poverty prevails, security of tenure and delivery of infrastructure cannot lead to house improvement and that when no form of building or planning regulation is applied it may result into lack of direction or guidance of development in the settlement. Subsequently the

comparatively wealthy plot owners use land and its improvement as a means of storing wealth or ripping easy profit through construction of inadequate housing units. Conventional building materials and technology is unaffordable to many of the developers yet local building materials and appropriate technology which could have reduced the construction costs were not applied.

The study further shows that household savings are not sufficient for house improvement hence people require external financing which in turn is not accessible to them. Customary practices were found to have had limited influence on house improvement, instead the prevailing socio-economic situations are influencing the customary practices. Finally the study shows that for the success of an improvement programme, it is important to have extensive and comprehensive involvement of the beneficiaries in discovering their needs and potentials, planning, implementation and subsequent management of the improvement process. The full and active involvement of the people is on the other hand dependant upon their occupations, income levels, education, cost and availability of building materials, sources of finance, availability of time for the households to take part in improvement activities and family responsibilities.

In addition to these, the geological make up of the site also has effect on the ability of the people to improve.

The study therefore suggests that for the full participation of the beneficiaries to be solicited, their socio-economic status must be uplifted through education and adequate training programmes, expanding the economic capability of the poor plot owners and tenants alike, provision of infrastructure in consultation and co-operation with the beneficiaries, giving the people access to both conventional and non-conventional financing systems, encouraging the production and use of appropriate building materials and technology, effective planning to avoid the event of settlements being located on unsuitable grounds and devising suitable development guidelines to prevent the commercialisation of low income settlements through the provision of inadequate housing structures.

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CHAPTER ONE

INTRODUCTION

Inadequate housing is a significant problem in the urban life of many developing countries. The problem has now assumed alarming dimensions and the number of people living in the informal settlements is not only large, but is also continuing to increase due to the unprecedented rates of population growth, urbanisation and poverty. It is estimated that between 50 to 60 percent of the inhabitants of the cities in developing countries now live in the informal settlements. Tinshacks, mud and wattle huts have become common features of cities such as Bogota in Colombia, Manila in the Philippines, Lima in Peru, Lagos in Nigeria and Nairobi and Kisumu in Kenya (UNCHS, 1984).

While the informal settlements in these countries and cities contribute considerably to the solution of housing problem, they are generally almost all characterised by inadequate housing units, deficient amenities, overcrowding and congestion. In the early days upto 1960s, clearance (demolition) and public housing schemes were used as ways of solving the problem of informal settlements in many parts of the World, including Kenya. However, it was discovered that this could not match the formation and growth of the settlements and in any case just accelerated it. As a result, site and service schemes and slum and squatter improvement programmes emerged as a panacea, albeit their success has been meagre.

Despite the increased governmental action during the last two decades, the housing situation of the poor in the developing countries has been continuously deteriorating. In Kenya for instance, although the entire housing need and conditions for its improvement feature significantly in the Government Development Programme, there continues to be an extreme shortage of adequate formal housing resulting to growth of informal settlements. Although these settlements have proved to be quite important in filling the gap created as a result of housing shortage, the poor living conditions found in them is quite worrying. An increased and changed action is therefore necessary, even merely to avoid continuous increase in the number of the inadequate houses and poor living in unhealthy shelter and neighbourhoods.

This work reviews the development of informal settlements, the evolution of improvement approach as a tool to make better the housing conditions in the informal settlements, and tries to find out the factors that have affected house improvement in the informal settlements of Kenya, using Manyatta settlement (Kisumu) as a case study. Finally the research proposes ways by which shelter (house) improvement in the informal settlements can be enhanced.

BACKGROUND OF THE STUDY

Developing countries all over the world are currently besieged with a formidable combination of challenges and strains. Factors such as unprecedented urbanisation coupled with high population growth rates, poor domestic policy performances and the associated debt burdens have had devastating impacts on development policies and strategies. One of the problems that now call for serious attention in the developing world is the increasing number of the homeless and those living in extremely poor shelter and unhealthy neighbourhoods, whether in slums or in squatter settlements.

Like many other developing countries, Kenya has its own share of informal settlements problem which is relatively widespread. In many towns there exist informal settlements which either originated during the colonial period or sprang up after independence. These settlements have overtime deteriorated in terms of housing. Examples include Kibera, Pumwani-Majengo, Mathare Valley (Nairobi), Machakos Mjini (Machakos), Chaani (Mombasa) and Manyatta and Nyalenda/Pandpieri (Kisumu). Such settlements lack adequate infrastructure and because they are informal (or formally illegal), no adequate consideration was given to the provision of these facilities.

During the colonial period, the colonial government saw the informal settlements as a problem of control and hence reacted by demolishing the structures and encouraging the Africans (inhabitants) to go back to the rural areas. After independence, the housing policy pursued adopted the existing building methods and standards notwithstanding that they could be inappropriate climatically, socially and even financially. The rejection of the informal settlements was therefore encouraged. As an implementation of this policy, the Government of Kenya

(hereafter referred to as GoK) and the local Authorities concentrated on the provision of conventional housing and demolition of the informal settlements. Since the conventional housing produced were few and not affordable to the urban poor, it left the majority without housing. As the number of the unhoused poor increased, so did the pace of the formation and growth of informal settlements increase.

Beginning in the 1970s, it was realised that demolition and public housing could not solve the problem. The 1970/74 Development Plan of the Republic of Kenya stated that demolition would be postponed until such a time that the housing shortage is met. In spite of this, demolition continued into the 1970s and 1980s although at a lower rate (NACHU, 1990). A repeat of the same was experienced in the late 1980s and early 1990s with demolition activities which affected settlements such as Kibagare, Muoroto, Mukuru Kayaba and Fuata Nyayo-Mariakani settlements in Nairobi.

From the early 1970s, the scale of the housing problem was to play an important role in the GoK's strategy, clearly shifting from the conventional housing policy to a 'realistic' (NCC, 1973) or 'pragmatic' (UNCHS 1983: 12, Amis, 1983: 137) housing provision policy. The new strategy was strongly associated with involvement of the World Bank and USAID, and included provision of serviced sites; and increasing acceptance, legalisation and consequent improvement of the informal settlements (USAID, 1980). The implementation of this strategy can be seen in the first urban project in Dandora, Nairobi, followed by second urban projects in Mombasa, Kisumu and Nairobi and the third urban projects in the secondary towns. Improvement of informal settlements was introduced in 1978 under the second urban projects and has since then involved several other towns. Generally, the evolution of policies dealing with informal settlements in Kenya fits well in the five common stages described by Shabbir (1987), drawing upon historical data from developing countries. The stages are as follows:

a) Clearance and forced migration:- At this stage, long past in Kenya, the government attempted to dissuade low income migrants through forced repatriation to rural areas. This can be said of the early colonial period.

b) **Slum clearance and public housing:-** This is the stage where the government on realising that it is not possible to totally control the increase of the poor in the urban areas, and on realising the inevitable growth of housing problems and proliferation of the informal settlements, started providing subsidised public housing for rental while demolishing the informal settlements. This is comparable to the 1950s and 1960s in Kenya (Stren, 1978).

c) **Provision of minimum services:-** At this point, the government recognises the political and financial realities and acknowledges the inevitability of informal settlements. The government responds by initiating provision of serviced sites and instituting some degree of cost recovery. The site and service schemes initiated in 1972 in Kenya shows this.

d) **Extension of tenure security and physical upgrading:-** Here policy shifts are made to mobilise financial and 'sweat equity' investment by the low income residents to improve their own settlements. Government focuses on that which the people cannot provide for themselves such as legal tenure and basic infrastructure. This can be seen in the improvement programme launched in Kenya in 1978.

e) **Attempt to recognize of the legitimate role of the low income settlers in urban development:-** At this stage, a variety of policies governing land delivery, building and infrastructure, land use, long term financing and cost recovery and the role of private sector are all brought into harmony with the objective of fully and productively integrating the low income majority into the urban development process. This is the stage which Kenya entered in the 1980s as can be evidenced by the revision of the building by-laws and planning regulations, and the restructuring of the financial institutions to provide for private sector participation in the housing development process (Sessional paper No.1, 1986; Syagga et al., 1989; Syagga and Ondiege, 1993).

While these stages have had considerable impacts on the informal settlements in Kenya, the settlements have continued to thrive in most of the urban areas of Kenya. It is said that the scale of the problem is even currently far greater than in the early periods of the growth of the urban areas, yet the conditions creating the problem and the solutions proposed have not changed fundamentally (NACHU, 1990).

PROBLEM STATEMENT

Landlessness, poverty, high population growth rates, poor agricultural turnover and shrinking economic opportunities in the rural regions of Kenya have led to massive migration of the people into the urban areas. The urban residential areas on the other hand have not been able to accommodate this influx through the formal housing process. As a result, there has been the development of informal settlements with insufficient infrastructure such as water supply, sanitary facilities, roads, electricity network; insufficient community facilities such as schools, health centres and recreational facilities; and above all, widespread deficient housing structures. These poor conditions are usually associated with health hazards, crime and child delinquency; factors which affect negatively the life of the residents.

Observers of the informal settlements have often noted that left to their own resources and given security of tenure and essential services, the people in these settlements will gradually improve their own houses overtime(UNCHS, 1977; 1981). This in effect contributes accordingly towards improvement of the settlements and the living quarters since the inhabitants are free to invest household savings and efforts in accordance with the changing needs and priorities. Further researchers such as Turner (1976) have argued that without external interferences such as building by-laws and planning regulations, the inhabitants can directly influence the housing conditions in these settlements for the better. The implication of this is that the informal settlements if and when allowed to develop according to their own preconditions, will be self-resolving in the long-run. Hence the most important and stressed presumption here is the ability of the poor to solve and improve their poor housing conditions.

Using this depiction, attempts were made to device informal settlements improvement programmes (commonly known as upgrading programmes) on a fairly large scale in Kenya, as can be seen for example in the second and third urban projects sponsored by the World Bank. The role of the government was reduced here to the provision of infrastructure and regularisation of land tenure. A capital investment was thus made in this case by the GoK, basically intended to stimulate private sector investment in housing, and it was implicitly thought that the level of

services provided and the dwelling unit that the beneficiaries would come up with would be closely correlated.

Although one might say that it is still too early to evaluate the programme, voices have already been raised regarding the assumptions upon which the improvement program was based. The programme began in Kenya in 1978, however, by 1983, Maina G.G., the then chief housing officer argued that although the programme was being implemented in towns like Kisumu and Mombasa, it had already proved ineffective in Nairobi (Maina, 1983). In January 1994, Maina observed that the results of improvement programme in Kawangware settlement in Nairobi for instance, differed from what was expected in that although the programme managed to provide infrastructure, the resulting housing structures were more like the development process that was found in this settlement prior to the programme, and which the programme sought to eliminate. He also observed that there was already dislocation of the original poor inhabitants who were being replaced by new people resulting to the geographical transfer of the same problem to other areas of the city (Maina, 1994). The latter idea was also confirmed of Manyatta settlement in Kisumu by Jobita (1986).

Past experiences in Kenya show that once security of tenure is granted and infrastructure delivered, the original inhabitants are pushed out resulting in the geographical transfer of the problem to another already established informal settlement, or in the formation of another settlement. Where the poor inhabitants have remained in occupation, the improvement of the actual housing unit has been either too slow, impossible to materialise or has been done by other people not originally intended by the project. This failure has led to further deterioration of environmental standards and living conditions in the informal settlements with the result that housing conditions in these settlements have remained very poor as if by design.

The assumptions upon which the improvement programme was formulated in Kenya, and the context in which it was implemented is therefore questionable, especially in as far as the improvement of the actual housing unit is concerned. Taking for instance, the provision of infrastructure, presumably house improvement

would involve connecting the house to the infrastructural network and this would stimulate the subsequent betterment of the building in terms of space and quality of the building fabric. As a fundamental component of improvement project, this might appear to be relatively unproblematic as a goal and as a method. However, it is also possible that the rise in the standard of building or the tapping of services may depend on income level of the owner. Likewise, the increase in the number of substandard houses may be matched by the intention of the owner to earn fast rent and make profit. These two cases may present no increase in the housing standards for the poor. In such a case, to what extent is house improvement only a reflection of the efforts of high income groups in this area who come to enjoy the services? To what extent is it a function of the interest and ability of the poor to make themselves live in better environment? And to what extent is the increase in the number of substandard housing a reflection of the owners intention to make profit from rental structure or the inability of the poor to improve their housing conditions?

A change in land tenure from insecurity to security was also seen as desirable an incentive to invest in house improvement. However, it is also possible that when the people become owners of the property, they not only receive an incentive to improve their dwellings, but also to sell or rent out property to earn rent. What of the poor who have secure tenure but no money to develop their property? To counter this problem, the programme included employment and income generation component namely small scale industrial and business activities, hoping that the income earned could be translated into house improvement. The question that arises here is; can it be assumed that all income increases will be translated into house improvement rather than the general consumption?

Another goal of the programme was to solicit community participation in the housing improvement process. It is possible to say on one hand that through community participation by way of provision of a given amount of labour input by prospective beneficiaries, the monetary cost of particular service improvement and house building is reduced by a calculable percentage. However, were the poor residents involved in this project? Was it possible for the poor residents to offer

their time, labour and other resources for house building? Was the participation of the residents actually mobilised in this programme?

The concept of informal settlements improvement was adopted not only in Kenya but also in other parts of the world where in certain cases it was very successful. The examples of successful cases include George settlement improvement project in Zambia (Schylter, 1991), Managua settlement project in Nicaragua (Vance, 1987), Tondo settlement improvement project in Manila, Philippines (Viloria et al., 1987), Ashok Nagar improvement project in Madras (Robben, 1987), Baldia settlement improvement in Karachi, Pakistan (Van der Linden et al., 1987), among others. Yet in Kenya the success of informal settlement improvement model has been meagre.

While this ingenuity is recognisable and admirable it is still necessary to identify the circumstances surrounding attempts to manipulate housing improvements.

The questions that arise are therefore:

1. Can all the inhabitants of the informal settlements or the plot holders bring about improvement to their houses?
2. Who are the people who have managed to improve their houses (and have not) and what factors have determined their ability or inability to improve their houses?

In other words, what factors affect the improvement of the actual housing unit in the informal settlements? How and under what conditions can house improvement be effectively carried out?

Considering the magnitude of the problem of informal settlement in Kenya currently and the possibility of its growth, it can be said that the programme has offered limited solutions so far and therefore the future appears grim unless new strategies are put into the programme. In this connection it is felt that there are certain factors which were overlooked in the formulation and implementation of the improvement programme in Kenya, which are vital for the success of an improvement programme. These factors include the fact that the tenure system may just favour the landlords and not tenants and thus encourage commercialisation, income level of the inhabitants or plot developers (house builders), family

responsibilities, profit expectations, level of education, occupation, the number of hours spent working in income generating activities, architectural design of the housing units, physical make up of the building site, lifestyle and customary practices, gender and marital status, the intended user of the building, awareness of the need for improved housing conditions and the objectives of the improvement programme and lastly the active involvement of the people in the programme from formulation to implementation and later maintenance.

However, since the progressive approach to house improvement relies entirely on the energies of the informal settlement developers for its success, it requires a good understanding of the conditions and courses under which these energies are motivated. The understanding cannot be gained through theoretical thinking, neither can solutions and answers be based on mere theoretical reasoning, hearsay or speculation from an essay desk. Answers must be sought from the field as this study proposes to do.

HYPOTHESIS

Housing improvement requires more than just security of tenure, freedom to build and delivery of infrastructure and social services. Much also depend on the socio-economic circumstances surrounding the inhabitants e.g. level of income, education and occupation, customs and lifestyle, active involvement of the people, profit expectations, cost of building materials, building regulations, architecture of the building and the geological make-up of the site.

OBJECTIVES OF THE STUDY

The study seeks to find out the factors that affect house improvement in the informal settlements so that adequate and appropriate strategies for addressing the legitimate shelter needs of the people living in the informal settlements can be formulated.

In order to achieve this, the study tries to establish the role that has been played by the factors such as land tenure security, building and planning regulations, lifestyle and customs, economic circumstances, the physical make up of the sites, architectural factors and the involvement of the community in determining it's own

potential for self reliance in house improvement. The study also seeks to develop appropriate guidelines for policy makers involved in the planning and implementation of improvement programmes.

It is hoped that this will help in determining the appropriate roles to be played by the people and the implementing agencies, the requirements of the people and what can enhance their participation in the improvement process.

RESEARCH METHOD

The study has four components, namely:

- (i) Literature survey
- (ii) House owners survey
- (iii) Survey of the physical conditions of the houses
- (iv) Interviews with the officials of Housing Development Department of Municipal Council of Kisumu.

Choice of the study site

Manyatta settlement was chosen because it is one of the settlements in which the improvement programme was implemented and carried out to its completion in 1990. During the programme the settlement was divided into two parts namely part A and part B. Land tenure regularization process was initiated in both parts through adjudication and registration. Infrastructure further was provided in part A but not part B. By the time the research was being carried out, the land title deeds for part A were already out. The ones for part B were not yet out but were being processed and were expected to be ready by 1994. The settlement was selected because in spite of the different conditions existing in both parts for instance the provision of infrastructure in one part and not in the other, both parts have recorded mixed type of development ranging from good buildings constructed of permanent building materials and having the basic services to poor structures constructed of mud and wattle with grass-thatched roofs. The settlement therefore provides us with a good

case from which to find out which factors are responsible for the varying levels of housing improvement that have been attained by the plot developers.

Sample size

By the time appraisal for the programme was being done in 1976 it was noted that the whole settlement had a total of 1461 plots. At completion in 1987 the World Bank noted that there were a total of 1092 plots. However, land subdivision has been going on in the settlement and by the time the research was being conducted, the kisumu lands office noted that there were a total of 1595 plots, 809 of which are in part A and 786 in part B. The researcher therefore took the total number of plots to be 1595 from which a sample of 10% was drawn giving us 160 plots. Since the difference in the number of plots in both parts was small, a sample of 80 plots was drawn from each part.

Sampling

The study used systematic sampling technique. Beginning from Manyatta market which is situated at the boundary of part A and part B (although it is basically in part A) and which was taken as the central point, distances measuring a hundred metres from the roads, rest roads or footpaths going into the inner sides of the settlement were taken. Along these 100 metres distances, systematic sampling was carried out, taking the lot at the starting point and the every third plot. The next sampling line began from the road etc., but also a hundred metres from the former one. The process was repeated until the required number of plots were attained. Locating the plot owners was not easy, but through frequent visits and appointments to the identified plots majority of the plot owners were found. Where an owner was totally difficult to find, another plot was identified through the same sampling system.

Initially the research was supposed to apply multi-stage sampling technique whereby a detailed map of the settlement was to be obtained and divided into equal segments using transects. The segments were then to be numbered and using random numbers table, specific segments selected within which systematic sampling was to

be conducted. However the detailed map could not be obtained from the authorities concerned who claimed that it was confidential.

Data collection

The interviewers went through the sampled plots with questionnaires to collect information about the building conditions as they were by 1978 before the programme began, and at the time the survey was being conducted (April/May 1993). In cases where new comers had replaced the previous owners, information was also sought about the key characteristics of the structures they found on the plots and about the plots in general.

The time perspective was thus built by asking for the information required for the two subsequent periods, mainly the year when the programme began or when the person started owning the plot, in cases where the owners came into ownership after 1978, and the time when the survey was being conducted.

The information gathered covered the following areas:

- a) Housing conditions and improvement, which entailed the quality and age of the building fabrics, the accompanying utilities on the plots, the improvements made by the respondents and whether the respondent intended to make any further improvements.
- b) The socio-economic characteristics of the developers which included occupation, income, source of finance, education, marital status, gender length of stay in the settlement tenure status, the relationship between these factors and the ability to improve and finally reasons (motives) for carrying out improvement.

As a whole the following methods were used to collect the required information;

- (i) Direct observation:- This was considered a reliable method in establishing the present conditions of housing because first attempts to see regularity are usually based on what one sees. To avoid biases and to ensure objectivity, a checklist was used which included the following elements to be observed.

a) Quality of the roofs, walls and floors in terms of building materials used, finishes and state of repair.

b) Availability of facilities and services such as kitchen, bathroom, toilet, water, lighting and access, the materials used and their state of repair. The observations were recorded in the questionnaire.

(ii) Interviews:- This was used to provide personal information from the house owners and information from the implementation agency officers. Such were pieces of information which were not readily available or obtainable by direct observations. Questionnaires were used in these interviews and it provided face to face meeting with respondents. It also allowed or gave chance for the respondents to clarify issues raised or specific meaning of answers while simultaneously allowing direct observations.

(iii) Review of the existing literature:- A lot of existing literature was gathered and analysed to provide the background of the study, the idea of informal settlement improvement and also concerning the formulation, implementation and performance of the improvement programme in Kenya.

Assessing House Improvement

To check the kind of improvement effected on the houses and to see if at all these improvement measures have made the house to be better than it used to be, an index as a composite score of the following aspects of the building that was on the plot by 1978 and the building that was on the plot at the time of research was constructed.

1. Building materials used:

Struct element	By Sept 1978		Current	
	Principal	Secondary	Principal	Secondary
Wall				
Roof				
Floor				

Options

(1) Stone (2) Concrete (3) Brick (4) Wood/timber (5) Mud blocks (6) Mud and wattle (7) Cardboard (8) GCI (9) Asbestos (10) Clay/cement Tiles (11) Thatch (12) Scrap materials (13) Shingles (14) Cement plaster (15) Cement screed (16) Stabilised earth (17) Wooden Tiles (18) Others (specify).

2. Type and nature of building:

	By 1978	Currently
Building type		
Nature of structures		
Age of buildings		
No. of units/rooms		

Options:

Type of building: a) Tenements b) Huts c) Bungalows d) Flats e) Condominiums f) Single rooms g) Others (specify).

Nature of building: a) Permanent b) Semi-permanent c) Temporary

3. Condition of the building:

Component	By 1978	Currently
Roof		
Wall		
Floor		

Options

(1) Excellent/good (2) Need little repair (3) Need major repairs (4) Dilapidated (5) Need to be completed (6) NI

Note: Specify what kind of repair.

3. Services available:

Options

(i) Cooking place. a) Independent kitchen. b) Well designed cooking place. c) No specifically designed cooking place.

(ii) Toilet and Bathroom: water penetration resistant walls and smooth waterproof floor surface. a) Water borne. b) Pit latrine. c) No toilet/bathroom.

- (iii) Access to clean water. a) Piped water to the house/compound. b) Water kiosk. c) Borehole/well. d) River.
- (iv) Electricity. a) Available to the house. b) Not available.

Service	By 1978	Currently
Source of Water		
Electricity		
Toilet		
Bathroom		
Cooking place		

The difference between the aggregated points for the building which was on the plot by 1978 and the one found on the plot at the time of research was taken as an indication of the improvement effected on the building.

This kind of scale is offered here as a tentative but useful measure of summarising improvement efforts. Nonetheless, the figures represents only a relative order of magnitude. Items were also treated singly in order to see on which part of the building the developers concentrated their efforts to improve and finally the level of improvement in the condition of the building was gauged against the requirements of a sound, healthy dwelling environment as contained in the revised building by - laws and planning regulations draft report number 7 of 1993.

Assessing Effect Of Customs

Inquiries were made as to whether the building in conformed to any of the customary norms or practices of the community from which the owner hails. This was done with specific reference to the type of building materials used, the shape of the building, the use of dwelling space, privacy and interpersonal relationship norms, customs defining who should build a house, when one can build a house and how one should build a house. Inquiries were also made as to whether the building owner had to follow the customs, whether he encountered any difficulties when

building or improving his building, and whether these customs are responsible for the current state of the building.

Method of data presentation and analysis

The data for each part of the settlement was analysed separately so as to find out which factors affect house improvement in each part. Finally comparison was done to see the similarities and differences existing in both parts. Contingency tables or cross tabulations which are clear, easily understood and interpreted have been used. These include percentages, ratios and proportions which have been used to aggregate and compare frequencies of the variables.

Row%

Count

Column%

Total%

Building user

Level of improvement	Building		User		Row total	
	Owner		Tenant			
Improved	29	58	21	42	50	62.5
		58		70		
		36.25		26.25		
Not improved	10	56.6	8	44.4	18	22.5
		20		26.7		
		12		10		
Deteriorated	11	91.6	1	8.4	12	15
		22		3.3		
		13.75		1.25		
Column total	50	62.5	30	37.5	80	100

Every contingency table shows the cross-category counts for two variables. The table rows are for the dependent variables and the column rows for independent variables. The total observations and their row and column percentages, for each row and column are reported in the margins of the corresponding rows and

columns. For every combination of row and column category the following four summary statistics are reported: 1) total observation for this row column combination, 2) observations as a percent of the total row, 3) observations as a percent of the total column, 4) observations as a percent of the total observations in the table. See the example above. Pictures of various sites have also been used.

SCOPE AND LIMITATION

The study concentrated only on the problems that affect the abilities of the house owners to make their housing units better. Housing improvement as a broad topic includes the provision of infrastructure and community facilities to the settlement by the authorities or the people themselves. However there exists already a lot of documentation on the provision of infrastructure and community facilities and for that matter, the study concentrated only on the improvement of the housing unit itself. This involves the betterment or making better of the building fabric (walls, floors and the roof) and the connection of services to the housing unit, which services include cooking area, water, sanitary unit, lighting and access. The factors affecting the public and non-governmental agencies, which are equally important are also not part of the study.

In a study like this one, it would be beneficial to continuously observe the process or to make continuous visits to the research site for data collection over a long period of time. It was not possible to include the above two aspects in the study due to the limitations imposed by time and financial resources, therefore past time was integrated in the analysis by using documentation or by asking the respondents about the previous situation, while leaving the study on public and non-governmental agencies for future research.

Lastly, there was an implicit difficulty in ascertaining the income and expenditure levels of the people; this is not to say that the people were generally dishonest. However, in an informal economy where no sufficient systematic records are kept concerning how much is received or spent, it must obviously be difficult to ascertain these items. Reliance was therefore made on information received from the respondents and comparison of their income and expenditure patterns although even here incomes and expenditure usually tend to be exaggerated. Incomes and

expenditures were recorded by asking the respondents how much they received from various sources or spent on different items monthly.

JUSTIFICATION OF THE STUDY

It is a well documented fact that the urban areas of Kenya are faced with the problem of informal settlements which are fast growing and difficult to manage. Kisumu town which is our study area ranks third largest in Kenya after Nairobi and Mombasa. By 1991, its population was estimated to be 350,000 people with an annual growth rate of 6.5% (Kisumu Municipal Commission-KMC-1991: 1). The improvement programme caught up with Kisumu in 1978 as a matter of government policy sponsored by the World Bank. However, the housing problem and the growth of informal settlements in this town has been on the increase rather than the decrease. It is estimated that more than 73% of the housing available in Kisumu is found in the informal settlements (MoW, 1986). By 1987, Kisumu ranked second after Mombasa in terms of poor housing provision for the residents (Macoloo, 1988).

A casual look at Manyatta settlement (the case study) in Kisumu may identify some improved houses in the area currently. However, the general observation shows that a reasonable number of houses have remained at elementary level and that the housing conditions of the poor have degenerated further in this settlement (Jobita, 1986). This is a clear indication that although an improvement programme was implemented in this settlement, there is a considerable difference in the context under which house improvements do take place.

Given the inability of both the central the local government to house everybody using the conventional housing approaches, it is necessary that future housing policies rely heavily on the ability of the people to build houses for themselves and/or be in charge of their house building and improvement. It is in recognition of this fact that the GoK launched the improvement programme.

While the current endeavours to ameliorate the problem of housing in Kenya are commendable, they are inadequate for a majority of the population. The reliance on peoples efforts, which apparently will have to continue since the government's

ability to provide housing has not improved, will only be successful if practical policies are formulated which embrace the actual conditions of the inhabitants as far as their ability to house themselves is concerned.

It is hoped that the research will prove useful, through the data gathered, in enhancing the overall knowledge of factors to be addressed in improvement programmes. The research should also serve as a source of reference for any person involved in the search for solutions to this fast growing problem.

DEFINITION OF TERMS

Informal settlements

Going by ordinary meaning, anything informal is that which has been carried out or conducted without regularly prescribed procedure. Human settlement on the other hand is a place where organised human activities occur, whether a tented camp, a village or scattered places of abode in the rural areas. It is an organised space regardless of its density and level of infrastructure (Ramachandran 1983).

The definition of informal settlements however is not so straight forward. Different terms have been used by different observers to collectively define all the informal settlements but none covers all the different types. Drakakis Smith (1981:297) defines them as settlements where the occupation of land, house or both are illegal. Similarly Leeds (1969: 44) suggests that the informal settlements are settlements of illegal and unordered origin.

Many other terms such as uncontrolled settlements (Etherton, 1971; Mwatha, 1979; Kamay, 1987), squatter settlements (Waweru and Associates-WAA-1977, Ndorongo, 1986), unplanned settlements (Rubakare, 1987) spontaneous settlements (Gugler and Gilbert, 1982), Shanty (Huque, 1982) have all been used to describe the informal settlements.

Nevertheless the term informal settlements is used here to mean all the settlements which do not conform to any formal and centrally imposed regulations, building codes, specifications or zoning regulations; and such housing which even though now solidly built, may have begun on the fringe of the law, usually built in measure

by the inhabitants themselves when resources become available. It therefore designates the process by which people obtain access to land and (or) produce housing outside the legal framework and regulations prescribing how land ought to be obtained and houses ought to be developed and the product of building activities.

House Improvement

For purposes of second urban projects, house improvement was defined as the creation of modernised physical conditions in substandard buildings, Substandard being gauged against the conventional housing concept (WAA, 1976). The 1976 low cost housing and squatter upgrading study definite housing improvement as the provision of new housing or the replacement (progressive) of the existing ones where possible and feasible to good conditions, but within the guidelines and plans established and enforced by the authorities and to the required and acceptable standards.

For purpose of this research, house improvement is taken to mean the permanent additions to or changes effected on the building fabric for the purposes of causing the betterment of its state, enhance its quality or capital value and which involves the expenditures of labour or money and designed to make the house useful and desirable to its occupants as opposed to ordinary repairs. This includes rebuilding, reflooring, rewalling, reroofing, painting and repainting, inserting new doors and windows, constructing or adding kitchen, toilet, bathroom, or more rooms, tapping of services such as water and electricity etc.

Customs or Lifestyle

Customs or lifestyle are used in this work to mean peoples values and ideas with respect to the housing process especially those relating to the housing unit occupied by a household or that unit which a household would prefer to occupy. It also includes the knowledge and experience accumulated over a long period of time regarding the arrangement of rooms and location of houses, use of dwelling space, regulations determining inter-personal relations within a household, and those determining when, where and how one should build or modify his house.

ORGANISATION OF THE STUDY

The study has been organised into five chapters.

Chapter one:- This is the introductory chapter providing the background of the study and the statement of the problem that the study seeks to investigate. It further describes how the research will be carried out the limitations and why the study is necessary. Certain terminologies used in the study are also defined in this chapter.

Chapter two:- Contains a review of the literature concerning the formation, growth and magnitude of the informal settlements. The chapter discusses the attitudes and policies which were used in dealing with informal settlements in the period before the 1960s and how these attitudes and policies begun shifting leading to the formulation of strategies and the active involvement of governments in the improvement of informal settlements.

Chapter three:- Discusses the policies that have been used in dealing with the problem of informal settlements in Kenya, beginning with the colonial period, independence period, right into the current strategies which have seen the improvement programme take its shape in Kenya. The chapter further gives a brief summary of the improvement programme as it was formulated in Kenya.

Chapter four:- Describes the general background of Kisumu Municipality giving the historical developments, housing situations, locations, climate and physical characteristics. It further gives the background of Manyatta settlement describing the situation, physical characteristics, population, condition of houses, infrastructure (water and sanitation, electricity, waste disposal and storm water drainage and road network), community facilities, land tenure and rents. Analysis of the socio-economic characteristics of the plot developers in Manyatta settlements gauged against their housing conditions is done in this chapter so as to see whether they have any effect on the level of housing improvement which has so far been achieved.

Chapter five:- Contains the conclusions drawn from the analysis done in chapter four and the strategies which recommended for dealing with informal settlements improvement.

CHAPTER TWO

LITERATURE REVIEW

INTRODUCTION

It is a well documented issue that urbanisation has brought with itself many socio-economic problems of no small magnitude and housing has featured as one of the major ones. Housing the urban poor has become a major concern for many developing countries and of greater concern is the increase in number and size, and deterioration of the informal settlements in the urban areas. During the 1950s and 1960s, many governments responded to the problem of informal settlements by demolishing the structures and transferring the affected families to relocation areas using conventional housing strategies. This however, did not solve the problem and the informal settlements continued to grow.

Frequent clashes between the government forces and the informal settlement residents in the 1960s drew concern from scholars, religious organisations and leaders, and labour groups amongst others, who then helped to organise the residents to avoid further evictions. Thereafter, many attempts to demolish the informal settlements were futile. Continued pressure upon the governments of developing countries to legalise informal settlements and the consequent realisation by the same governments that they were not able to house everybody through conventional housing systems led to a change of attitude among the governments towards informal settlements. As a result, government reactions started moving from demolition to attempts at improving the informal settlements.

This chapter reviews the formations and growth of the informal settlements, and the pivotal concepts and propositions which have widely been used to explain the phenomenon as well as to recommend measures for negotiating the existence of the informal settlements.

FORMATION AND GROWTH OF INFORMAL SETTLEMENTS

The formation of informal settlements proceeds in widely differing historical, cultural and economic as well as institutional contexts and can fall under the following arrangements:

- i) Settlement on customary land
- ii) Invasion
- iii) Accretion
- iv) Alienation of Government or public land
- v) Informal commercial arrangements

One of the major factors which causes the existence of informal settlements in the urban areas is the natural population increase. Population increase in the urban areas of developing countries is said to be contributed to majorly by migration of people from the rural areas to urban areas, as a result of landlessness, poverty and shrinking economic opportunities in the agricultural regions (UNCHS; 1984), forcing them to move to the urban areas in search of income earning possibilities. When the possibilities of urban employment are well below the dimensions of the migrations, there is bound to be more problems for the migrants which limits their prospects for improved shelter. Since migrations into the urban areas are in search of hope for economic gains, the disappointing economic opportunities only result into the increase in the proportion of city dwellers who are poor. Capital being the direct or indirect control of the means of subsistence and production of goods (Engels, 1969), it therefore follows that the poor cannot afford to stay in decent houses but in the informal settlements.

This has to happen because conventional housing construction produces only middle or high income housing which is unaffordable to the poor due to the high building standards adopted. The poor therefore, find for themselves locations in proximity to the potential sources of employment, usually near industrial services and transport services, and consequently settle informally.

The above argument although very useful in understanding the informal settlement process, it overshadows the nature and causes of informal settlements in other developing countries where colonisation has been a crucial factor such as Kenya. Informal settlement development in these areas may neither be an original or traditional state of affairs nor a historical stage of economic growth as was experienced by the developed countries. In the previously colonised countries, it became a necessary product of colonial development which created the conditions for the emergence of the underdevelopment theory of urbanisation with both developed and underdeveloped areas within the same countries and even within the same urban areas. Development in this case was largely dependent upon the availability of raw materials, intention to extract the available raw materials and the attitude of the colonisers towards the colonised (Kingoriah, 1986). Hence the welfare of the workers was to be considered only in so far as they could be productive in a region and even then, consideration was only given to the provision of the bare minimum requirements for the workers' welfare. This resulted into the provision of poor housing or no housing at all for the workers leading to the formation of informal settlements.

It is assumed that about half of the urban population growth is due to natural increase (UNESCO/UNEP, 1977). This implies that at any given time, an even increasing number or proportion of the urban dwellers will be young people needing urban services yet earning no much as individuals. Together with the migrants from the agricultural areas who are in search of employment opportunities they form the users of the income without contributing any cash. Taking into account the fact that urban economies run on cash, they compete for less services unsuccessfully. Being disadvantaged when resources are scarce, they cannot afford conventional housing and hence they have to resort to the dilapidated structures of the older sections of the city. Where there is limited supply of such housing, they have had to rely on the informal process and arrangements to get access to housing (UNCHS, 1984). Thus we can say that informal settlements form and grow as a reaction or response to the shelter needs that have not been met.

Another factor that contributes to the growth of informal settlements is the constraints of urban land such as the amount available, quality and nature of

ownership (UN, 1977). Where the supply of land is limited, growth and change of the urban housing is restricted resulting to increased densities. Limited supply also affects the quality of land used for informal settlements and because of competition from other users whose purchasing power may be stronger, the poor are competed out only to crystallise on hazardous sites without services. These are the sites where the settlements can expand rapidly since there is little demand for them. Growth here also depends on the community organisation within the settlement and the official response towards it. Where the community is strongly organised they can resist the hostility of the authorities and continue growing.

Lastly the desire to earn quick profit through cheaply constructed rental housing also contributes significantly to the formation and growth of informal settlements. Amis (1983) proves this for Kibera settlement in Nairobi, Kenya; where it was found out that the wealthy own property in this place and exploit the poor by charging high rents. Amis argues further that this has been made possible since it is the rich who own the required capital that can be invested in these areas, the power of decision making, and the authority of securing tenure. It can therefore be said that, the settlement grows as a result of the profit motive nurtured by politically powerful developers.

THE MAGNITUDE OF INFORMAL SETTLEMENTS

The speed of urbanisation in developing countries today is not faster than normal. However, the numbers involved are unprecedented. Inhabitants of towns and cities of developing countries increased from 300 million in 1950 to 1.8 billion in the 1980s; if the UN projections are right, there would be 4 billion people by the year 2020. Out of this, 179 million will be found in Nigeria, 58 million in Zaire, 47 million in Tanzania and 42 million in Kenya (Nigel, 1992).

Against this background is the fact that more than one billion people in the rural and urban settlements of the developing countries are already living in poverty. A similar number live in housing unfit for human habitation and more than 100 million have no shelter at all. In many of these cities, between 50 to 60 percent of the inhabitants are living in the informal settlements (Dowdeswell, 1993). Most of the new housing and neighbourhoods in the developing countries' cities are now

organised, planned and built outside the law. Most urban citizens have no choice but to build, buy or rent an 'illegal dwelling' since they cannot afford the cheapest conventional (legal) dwelling. The 'illegal dwelling' now takes from 70 to 95 percent of all new housing in most cities (Hardoy et. al., 1989). This number is bound to increase in the next decade unless remedial measures are taken.

EARLY ATTITUDES TOWARDS INFORMAL SETTLEMENTS

From the early days particularly during the industrial revolution and shortly after the second world war, housing has been a problem for most of the developing, underdeveloped and developed countries alike. During the 19th and the early part of the 20th centuries, investment in housing was largely ignored and was never accorded the consideration it deserved where other investments were being considered.

One of the reasons for neglecting housing was that it was viewed as a sub-ordinate requirement in the estimates of international aid; and amongst the economists and policy makers within the various countries. It was felt that housing calls for a large input and yet yields little output. The implication of this was simply that housing called for low priority in both internal spending and international aid. This pattern of thinking was succinctly expressed by Sir Percy Spender, an Australian Ambassador to the United States of America, when he said that:

'There are too many urgent things to attend to ---- the problem of house building in this part of the world is one about which we do not want to be too urgent. The more important thing is to help the people obtain facilities to increase production and progressively they will thereby solve the problem of housing in their own way' (Abrams, 1964:7)

The investment in housing was therefore to be kept down close to the lower limits of requirements if the fastest rate of growth of output was to be obtained.

It is difficult of course, to argue with contention that a poor country should spend too much on housing. Indeed it should not spend too much on anything. However, the trouble with this theory is that it assumes there is a sharp distinction between production and consumption standards. It fails to see that the problem of shelter in

less developed areas is not solved by building a lot of costly public housing projects or a cluster of bungalows.

In the long run, the economists and policy makers' exceptions for permissible housing tended to multiply and rendered their main argument suspect. The resources and capital that they might have wanted to devote to more 'vital' uses were somehow consumed for housing since the pressures and needs for housing are often so great that more of the scarce resources were consumed than would have been if there was a sensible housing policy. As the employer built for his executives and the wealthier built costly houses with imported materials, the desperate could not wait for the economists and policy makers to settle the fine points of their disputes. They therefore, started taking over land illegally, and building with whatever materials they could buy or forage, resulting into a growing number of informal settlements.

Before early 1960s, few attempts were made to study the formation, forms and the extent of the informal settlements in the developing countries. This can be attributed to the fact that many of the countries lacked explicit public policy regarding housing and urban planning issues; Secondly, because housing was not seriously regarded, informal settlements were not an issue that made itself felt for serious analysis. Thirdly, in some parts of the world, there has been neither enough money for housing nor serious efforts to derive the essential means of housing production. Some governments amongst the less developed countries tried to weather the popular pressures for shelter by making promises that they could not fulfill or by providing few sporadic projects to buoy hope. From 1960s, this phenomenon began to provoke a number of responses. However, one is right to say that the early analysis and comprehension of the informal settlements were negative in that the resulting views were diagnostic and prescriptive.

The informal settlements were regarded in a vast majority of cases as a pathological or anomalous phenomenon, a cancer in the city, whose growth must be stopped and its presence eliminated (UNCHS, 1981). In 1970, Jupenlatz for instance made the following observation:

..The outward appearance of the Malady, the urban squatter colonies, when viewed from the air, from a helicopter, is that of a fungus growing out from carapace of the city. Whether in act, the dark patches and blotches appearing across the bodies of those cities are really only fungus ---- or whether hidden inside the fungus is more deadly virus waiting its turn to its toll like the plague, is something which is not yet known only feared. (Jupenlatz, 1970: 5)

This was not only Jupenlatze's fear but a fear expressed by any other observers who in most instances looked at the settlements from a far and concluded them to be (potential) revolutionary hot beds from which violence and resentment could spring up at any time. Abrams (1964:287) observed that:

There is no more fertile ground for revolutionary propaganda than the beleaguered cities of the underdeveloped nations. Misery, bitterness and resentments in the teeming slums and squatter colonies, low wages and long hours in the factories, competitions for jobs and child labour, all recall the scene that made the communist manifesto an alarming document in the 19th century Europe.

We however, cannot forget the fact that any failure of government to understand peoples problem and needs would mean its being isolated and criticised sharply by the affected community. The majority of the citizens, forced by circumstances to live in the overcrowded degraded environments with no basic services, could not be expected to be passive in the face of such injustice. As the saying goes, 'a hungry man is an angry person', frustrations from lack of shelter could definitely lead to violence.

The informal settlements were also seen as a form of disorganisation or deviant phenomenon. Huque (1982) shows how Mathare settlement was described by one of the scholars of this period. He quotes thus:

Four miles from the downtown area, along the sides of the Mathare River, live some 10,000 to 20,000 urban squatters. The area ---- is ugly. The houses, crammed together in an apparently haphazard fashion dictated by the uneven terrain of the valley walls, are built of mud and wattle and have roofs made of cardboard, flattened tin cans or even sheet metal the inhabitants of Mathare Valley are generally urban misfits and rural outcasts. They lack skills necessary to find jobs in the modern economy, while at the same time there are no meaningful rural alternatives to which they can turn-- (Huque, 1982:34).

Such were the views of the early analysts who judged the informal settlements to be unwanted, a gangrene that must be burnt with hot iron and prescribed their replacement by new modern buildings through public housing schemes. As a result of these ideas, governments of developing countries had varying reactions ranging from discrete intolerance, hiding the settlements behind the billboards and production of long term plans, to imposition of civilised construction standards and eviction of non-compliers. Since most of the informal settlers could not comply, demolition of the structures was quite rampant.

Government responses to the existence of the informal settlements also varied with the political organisation of the society. Aradeon (1978) recalls the military governor of Lagos state who, on arrival from an Australian visit, announced that his government was going to clear the slums of traditional Lagos and rebuild it with modern apartments and shopping centres. Such misguided policies were both inconsistent and superficial and frequently led to inappropriate policy responses. Yet in many countries demolition still served an important role in the National Political strategy and often served to support political social groups.

In former British Northern Rhodesia (now Zimbabwe) for instance, demolition maintained an important colonial policy. Here, the urban areas were the milieu of the white population and legislation was enacted, to keep it that way (Tipple, 1976). Such a policy was still practiced in South Africa upto June 1993 where the state required that accommodation be built for the migrant labourers; spontaneous housing was prohibited in the cities, but permitted in the rural areas (Wilson, 1972; Ellis et. al., 1972). This policy was clearly not intended to help the poor blacks as much as to control their influx and maintain the white man's living standards. The South African policy though not accountable, was transparent and useful not only in warning us against the evils of apartheid but also to point to us the way governments can manipulate housing policy.

Demolition or clearance of the informal settlements therefore continued on the following grounds:

- i) To 'improve' or 'beautify' the city. For example the evictions that took place in Manila prior to the Miss Universe contest and prior to the visit of the Pope (Makil,

1982); and the eviction that took place in Seoul prior to the Olympic games (Urban Poor Institute, 1988). The active involvement of the late Sanjay Gandhi in the large scale eviction program in Delhi between 1975 and 1977 was also part of the city beautification program (Hardoy et al, 1989). And in Kenya, the large scale informal settlements demolition program undertaken by the Nairobi City Council before independence and after independence was meant to prevent the capital from becoming a shanty town (Nairobi City Council, 1964; Sessional paper No.5 of 1966/67).

ii) That the informal settlements are centres of crime and havens for criminals. In this connection, eviction not only made the city more beautiful, but also rid it of some crime concentrations. When for instance, a new eviction program was launched in Manila in mid 1982, Mrs Marcos (the then Mayor of Metro Manila) talked of 'professional squatters' who were plain land grabbers taking advantage of the compassionate society (concerned citizens for the urban poor, 1982). In Malaysia, illegal settlements were said to harbour criminals and racketeers, posed fire and disease hazards-----tarnished the image of the capital at home and abroad, and furthermore promoted juvenile delinquency, challenged the status of the government as the source of law and order, and threatened the economic, social and political stability of the city (Alken; 1977).

iii) Health problems evident in the informal settlements. This argument was used to justify slum and squatter settlement clearance in many of the cities for instance in Kenya, Latin America and Nigeria (Aina, 1987). However, clearance usually increased rather than decreased the health hazards that it sought to eliminate. The displaced people always joined others in another settlement and hence created more overcrowding in these areas resulting to further deterioration of the health conditions.

iv) Redevelopment in the public interests. More often groups commanding political support persuaded the planning authorities to legitimised projects in the name of public interest. In Rio de Janeiro the Favela removal program between 1962 and 1966 was supported on the grounds that the land was needed for mass-transit systems. In Mexico, a similar program was justified in terms of construction of a

Metro; in Lagos, 60,000 people were removed as part of a road widening project (Gilbert and Gugler, 1982). Of course, where a project is genuinely in the public interest, any group physically blocking its completion should be removed. Unfortunately, too many renewal schemes harm the poor while bringing very few real benefits to them. No doubt the approach was made attractive because the cleared land was often used for profitable commercial developments; those displaced by the process rarely recovered accommodation on the redevelopment sites, even where it had been promised to them.

As demolition of the informal settlements continued, the third world governments accompanied it with large scale public housing programs most of which were launched or the existing ones expanded during the 1960s. Examples of these are the large scale public housing programmes initiated during the 1960s in Brazil, Colombia, Egypt, South Korea Nigeria and Tunisia with efforts to expand them during the 1970s (Hardoy et al, 1989; Government of Nigeria, 1976/80). In Kenya, targets for public low cost housing expanded greatly first in the 1970/74 development plan and then the 1974/78 development plan.

The public housing programmes proved ineffective because they were costly and often only a few units were built relative to needs. Middle and upper income groups ended up as the main beneficiaries; and their designs and locations were ill-matched to the needs of the poorer groups and their culture or life style (Ekponyong: 1989). Disenchantment with public housing went hand in hand with the discovery that housing in the informal settlements were gradually improving overtime, largely through the efforts of the residents themselves and without resort to the formal housing finance or expensive modern construction methods. The earlier version to the development of informal settlements started giving way to the admiration of the abilities of the people who built for themselves, and thus creating a variety of house forms to suit their specific needs.

TOWARDS POSITIVE VIEW OF THE INFORMAL SETTLEMENTS

The origin of the positive attitude towards the informal settlements is not easy to point out precisely. Part of the attitude come from the experience of people who worked with low income groups in housing and community development projects in

the 1950s and the early 1960s. Part of it originated from the work of researchers working in informal settlements. Matos Mar, a Peruvian anthropologist, was amongst the first to write about informal settlements, mapping out their sites and seeking to relate their expansion with the policies of different governments (Matos Mar, 1962).

In the late 1960s, many researchers came up to dispute the image that had been created about informal settlements and the most outstanding of these were Abrams (1964, 1966), Turner (1967) and Mangin (1969), Rosser (1971), Rapoport (1973, 1969), Martin (1969), Sarin (1975), Haque (1982), Etherton (1971), Gugler and Gilbert (1982) among others. These scholars disputed the concepts of disorganisation, deformity and cancerous growth which had been claimed that the informal settlements exhibited.

After observing squatter settlements in Zambia, Martin (1969) concluded that the similarity existing in the informal settlements imply that no matter what the size of the settlement is, there is a basic force which tends to model the settlement into the some system of planning. To an architect or town planner, this should be a challenge, which should urge him to walk around the settlement looking for a common denominator in the layout of the houses. The architect should then apply his European mind to the scene, looking for subtleties of landscape; inflections here and there of a type he has been led to expect in the so-called organic town plans.

In a way, Martin is right in his argument because although the informal settlements may practically be illegal from the point of view of the professional, that does not mean that they are disorganised. It may simply be due to the fact that the city that the informal settlement dwellers are building, live in and work in is different or unrelated to what the city authorities and western trained technocrats want to build, that the settlements are seen to be disorganised. It should not be forgotten however, that the community organisations in these settlements are sometimes rational in their aims and actions, yet the resources and authority which might eventually improve the urban environment is not in their hands but in the hands of a small group of technocrats, often with little sensibility as to the kind of programmes which can benefit the poor groups. Martin's argument implies that there are explicit

elements of organisations in the way the houses are put up in the informal settlements and this should not be ignored but built upon.

To dispute the concept of cancerous growth, Rosser (1971) shows from the experience of Calcutta that the settlements provide opportunity for the poor households to arrange accommodation close to work places, they house informal economic activities and above all, offer solution to the urban housing problem at an affordable cost to the poor. In this connection, the settlements encourage and reward small scale entrepreneurship in the field of housing since the organisation is based fundamentally on the investment of hut-owner in the construction of his hut in such a way that rooms can be let for profit to individual tenants.

This view was also supported by International Labour Organisation (ILO report, 1972). The view however, fails to realise that what is rewarding to one category of interests in the informal settlements may be non-rewarding and actually dysfunctional to another category. For instance, a little space in the congested settlement will be rewarding and functional to the tenant but not the owner if it implies a lesser number of living dwelling units per holding to accommodate tenants.

The settlements came to be viewed no more as the bed of radical politics or accommodation for marginal population and criminals. They were seen as the centres where rural migrants learn skills to make urban living, as a stepping stone to better opportunities and improved accommodation. From studies of Gacekondur in Turkey, barricades in Peru and Randio in Venezuela, Turner (1972) says that the inhabitants of the informal settlements vote conservatively than their middle class counterparts and that despite the poverty, they have a deep sense of community participation and tremendous impetus for social improvement. Experience from Zambia also noted that the enthusiasm with which the informal settlement communities responded to and involve themselves in improvement projects makes the whole exercise more worthwhile, and cheaper than a clear land development exercise in the long run (Aziz, 1981).

Turner summarises it all by saying that:

Far from being the threatening symptoms of social malaise, they were a triumph of self-help which, overcoming the culture of poverty, evolved over time into fully serviced suburbs, giving their occupants a foothold in the urban economy (Turner, 1976:5).

With such Eulogy on both the informal settlement and their inhabitants, the stage was set for seeing the informal settlements as responses from the inhabitants to meet their housing needs according to their respective priorities and available options. Consequent studies showed that the clearance of the informal settlements greatly exacerbated the informal settlement problem by destroying some of the few options open to the poor. It also damaged the network of family, friends and contacts which individuals and families had built up within the neighbourhood, an aspect which is quite important for finding new jobs, borrowing money and goods and sharing child minding amongst others, all of which are considerable for survival (Hardoy et al; 1989).

The question however remained as to whether the process of improvement is possible for the majority and under what conditions can improvement successfully occur?

Studies that followed and the experience gained showed that acceptable dwellings and basic utility services could be made achieved in the informal settlements at affordable costs so long as certain strategies were (UNCHS, 1984).

PROPOSED STRATEGIES

Amongst the strategies proposed by this school of thought were the following:

1. Security of tenure and freedom to build

More than two decades ago Turner J.F.C. set the course of the present thinking, principally recommending or prescribing the legalisation of the occupation and giving the dwellers freedom to occupy and fully participate in the building process in anyway using any materials as the solution to the problem of informal settlements (Turner, 1976). He argued further that without high level of confidence that they will be permitted to retain the land, no family will willingly invest time and

money in consolidating their dwellings. The houses will be designed so that they can be moved easily to another location in case of eviction.

In agreement with this, Popko (1980) states that:

Although squatter settlements awake images of desperate poor people living in shacks or steep slopes overlooking the city, or along the highways or its peripheries, with images of violence, crimes, broken homes and political radicalism, the truth however is that, generally conservative, the squatter form tightly knit family groups looking for ways to become home owners. When they have threshold tenure, they undergo consolidation rather than budgeted development and will substantially improve their homes and infrastructure. (Popko, 1980:6)

This pattern of thinking was adopted by the United Nations Commission for Human Settlements as can be seen in the 1983, 1984 and 1987 UNCHS reports. In these reports it was widely published that houses constructed in the informal settlements are often found to be of unacceptably low standard because of the insecurity of tenure and eminence of eviction; all of which make the people to be reluctant to invest their savings and labour in housing since the probability that houses will be destroyed are high. The reports also indicated that where prospects of obtaining legal tenure have been reasonably high, people residing in the informal settlements have often invested considerable amount of money and effort in consolidating their houses (UNCHS, 1984; 1983).

This implies that those who can occupy a small plot of land can build a shack on it and gradually develop the shack into a house over the years. Their ability and willingness to develop their houses depend to a great extent on the degree of security of land tenure, that is to say, on their perception that their stay in the area is secure. To the extent that it is secure or that it can be made secure, they invest considerable amounts of savings, labour, creative and organisational energies in building houses and improving the environment. If the tenure is insecure, they prefer to remain in the low cost shacks rather than to invest resources in building houses only to see them being torn down later. The requirements for housing and environmental improvement was therefore seen as the provision of security of tenure and the freedom to build.

When referring to the advantages of squatting by emphasising upon security of tenure, these scholars might have had in mind subsistence shelter where provision and consumption of shelter is carried out within the same household unit (the builder/owner/occupier are all contained within the same social unit). Here there is neither tenancy nor monetary exchange involved in consumption and occupation of the housing unit. Secondly, Turner was dealing with areas where occupation was mainly through invasion and hence the immediate need was security of tenure, this might not be the same in some countries like Kenya where most of the informal settlements are either on lawfully held pieces of land or began through accretion in cases where possession is illegal.

It should be remembered that illegal occupation of land or construction of structures does not necessarily mean that the structures will be occupied by the builders or owners; neither does it imply that the occupant or builder will be a poor man.

2. Lifestyle or customs

Researches showed that even in conditions where people can potentially invest in house improvement, they may choose not to do so or they may be unable to do so because of their lifestyle. Norwood (1979) cites an example of improvement programme initiated in Port Moresby in 1973 on all government lands and on one customary land. Upon completion of this programme, a study of one of the settlements projected lifestyle as an important reason for the variation in house improvements.

According to the results of the study, the Goilalas built very poor houses and put much of their energies into a complex system of festivals held periodically in different parts of Moresby; the Koiraris put their energies into their religions and into improving their houses; while the residents of Talai were found to have higher degree of commitment to remain in town for the rest of their lives, hence they preferred to invest in their own houses.

According to this theory, the form of any built environment embodies the image of an ideal situation which is intimately linked to the lifestyle of the people. Such lifestyle elements would include ideology, traits, expectations, norms and

preferences (Rapoport, 1968, 1976 and 1979). Following this line of argument, the inhabitants of the informal settlements arrange accommodation by matching the existing environment with that embodied in their own image of an ideal environment taking into account the above elements. Adedokun (1989) argued these particular cultural housing values of people are often quite disregarded in efforts to provide housing for the poor. He maintained that this renders the perception and definition of housing problems confronting specific communities always wrong thus making it difficult to realise appropriate policy formulation, legitimisation and implementation.

Planners and designers needed therefor to be re-educated so that they can best cater for all social needs rather than being exclusionary in their planning based on outmoded and outpaced plans and ideals which limit accommodation of the prevalent social and cultural forces influencing the lifestyle of the poor.

The problem with this line of argument is that in the Third World cities, there are varying categories of actors and interests in the informal settlements whose lifestyles may also vary. The forms and functions of an informal settlement may connote different meanings to the different categories such as owners, occupiers, tenants and different agencies of public administration who may apply different sets of criteria in the interpretation of the image embodied in the settlements.

The question of whose choice or criteria gets primacy in determining the form of the informal settlements would definitely arise. Choice made by some people may result in the frustration of others because of the different lifestyles of the various actors whose perspective world views may not necessarily be the same. This reason makes this view to be more applicable in the rural areas and almost (if not) a dream in the urban areas, where the inhabitants and especially the tenants may be faced with a complete lack of choice.

3. Building and planning regulations

Referring to households whose building activities are not regulated by any exogenous criteria, Turner proposed that given the autonomy to design, build or manage, households are able to arrange accommodation by supplementing their respective monetary resources with non-monetary ones such as imagination,

initiative, capacity to use irregular sites, locally available building materials and tools and the ability to organise (Turner, 1976). He thus says:

When dwellers control their major decisions and are free to make their own contribution to the design, construction or management of their housing, both the process and the environment produced stimulated individual and social well being. When people have no control, or responsibility for key decisions in the housing process, on the other hand, dwelling environment may instead become a barrier to personal fulfillment and a burden on the economy (Turner, 1976:6).

Administration and implementation of planned development is therefore seen here to grossly distort the position and opportunities of the under privileged sectors of the population, leading to systematic diversions and under utilisation of their scarce resources. The removal of administrative practices restricting the development and the institution of options, programmes and measures which can enhance the opportunities of those whose residential and occupational activities are not accommodated within the formal framework was therefore one of the strategies recommended for the resolution of the problem (Sarin, 1975). Turner argued further that as long as planning is confused with design and lays down lines that people and organisations must follow, enterprise will be inhibited, resources will be costly and only the rich will benefit (Turner, 1976).

It is true that more often than not, the typical reaction of architects, planners and local authorities to housing problems is usually to recommend high quality government construction, while believing that standards will be lowered if the poor are encouraged or permitted to build their own housing. However, as Turner correctly points out:

The standards the objectors have in mind are not something which can be achieved with available resources but, rather represents the objectors own notion of what housing ought to be. (Turner, 1972:48).

Planners usually see only the bad elements of informal housing without seeing the good. Hence paper plans are seen as the reality while the solutions of the people themselves and their problems become in Grennel's term, 'Invisible' (Grennel, 1972:97).

The setting of any standard is relative, whether it is to promote health, safety or to protect people from inadequate pay or overlong working hours. Since there is no single 'Ideal' applicable in all societies, the standards must be relative to what can be achieved nationally and locally, and possibilities open to the poor groups. Adopting unrealistic performance-oriented standards which cannot be afforded by the majority of the urban residents definitely curtails the possibilities open to them for housing provision.

To be effective, a standard or code has to be related to local reality. If set too high or too much at odds with local preferences, it cannot promote better practice which should be its objective. If it cannot be implemented, it loses its meaning and if it contradicts deeply held social beliefs, it will create conflicts which may lead to its being unacceptable to the community whose housing condition is being improved. To this end, revision of the existing building and planning regulations, relaxing the requirements to accept what the informal settlement residents can afford was therefore seen as a strategy which could promote housing development in these areas (Hardoy et al, 1989).

4. Infrastructure provision

Informal settlements have always been characterised by their lack of public utilities and services such as rudimentary roads, absence of rapid water supply and waste water disposal systems, inadequate sewage system, unorganised garbage collection, lack of community facilities and absence of electricity.

Results of case studies suggest that not only are the informal settlement inhabitants lacking these services but also that this lack of access to the services affect their ability to improve their houses (Habitat, 1977, Sarin, 1975; Santos, 1979; UN, 1976; World Bank, 1976). These studies also suggest that the availability of infrastructure should have a beneficial cause - and - effect relationship, namely that the public investment in physical infrastructure should generate private investment in house improvement.

Members of the low income groups can usually take care of their own needs for shelter itself, but providing them with complementary services, which they clearly

cannot provide for themselves has been viewed as a critical issue that must be looked into by the authorities.

Syagga (1991) points out that in practise, urban services are under provided for the poor who in most cases do not use the formal means of urban transport, they do not use electricity for cooking, they have no access to safe drinking water and cannot afford conventional housing provided by the formal sectors.

Some studies have also proved that there is a strong relation between improvement and provision of infrastructure by the government because these items are hope giving. An example is the study of Karachi covering 250 squatter settlements (Van der Harst, 1974). According to this study, the delivery of the infrastructure may be interpreted by the inhabitants as measures of recognition and thus giving them hope that the settlement will eventually be regularised.

Noting that the provision of infrastructure is a precondition for any lower income community improvement, since it integrates its dwelling and the various economic activities with the rest of the urban area, Magutu (1991) says that the provision of the services is a basic human need, whose access to should therefore be guided by equity considerations rather than the segregating labeling as informal vis-à-vis formal.

However, it is worth noting that in cases where the authority had previously been hostile to the informal settlements, the residents may be reluctant to identify themselves with the programmes and view them with suspicion. Where such measures are instituted on legally occupied land with illegally constructed structures, the residents may as well mistake the action for steps towards grabbing their land. Lastly, such measures may just increase the pattern of the territorial injustice through the introduction of new technology in the provision of services leading to high prices which are not affordable to the poor. These notwithstanding, it was generally recommended that the public sector should provide the permanent framework of the services in the informal settlements so that the inhabitants can build their own houses when and how they can (UNHCS, 1981).

5. Poverty alleviation

While it may be true that the absence of Tenure Security and freedom to build, ignorance of the peoples lifestyle, high building and planning requirements and lack of infrastructure contributed to the lack of improvement in the informal settlements, it was also, shown that the prevalent poverty among the inhabitants had a lot to do with the poor housing conditions. Ward (1978) for instance, shows for three settlements in Mexico that once certain tenurial assurances are met, residential improvement at the household level is a product of the improvement surplus that is created. Since the majority of the people who live in the informal settlements have low income and weak purchasing power due to the inability of the national economy to provide opportunities for steady and gainful employment, they have to adopt measures of minimising costs which include accepting inadequate accommodation or substandard living quarters, (Syagga, 1987b).

Therefore, places where people are eager to build better houses and only the heavy handedness of the authorities and lack of infrastructure prevents them from doing so may not be as common as places where poverty prevent people from improving their houses. There are cases where residents have failed to improve their houses even though other necessary conditions have been offered. For instance, in Colombo where a redistributive program aimed at improving housing conditions of the poor was introduced in 1973 in the tenement gardens. A survey conducted four years later in 1977 could not identify any significant investment in house improvement although security of tenure, and infrastructure had been delivered. Residents were found to be too poor to be able to afford improvements without outside aid (Shlomo et. al., 1983).

Given this situation, it was felt that the only way to help the poor is to bring them into the development process by assisting them to become more productive. This would in turn, alter the circumstances that impoverish them and hence enable them to contribute to the improvement of their houses (Horwell, 1980).

6. Community participation

In many of the conventional housing development processes, the participation of the citizens was normally completely absent. This was due to the fact that participation of the citizens in building their own houses in urban areas was regarded as an undesirable characteristic of underdevelopment and institutional and technological backwardness (Turner, 1976). Hence the practice was for the outside agencies to formulate short-term project interventions aimed at identified target groups and concentrating action on that target over the short project period. This was done under the assumption that most or all resources for housing are controlled by large organisations. Therefore, the target group had little or no choice in the design and implementation of the projects. Their control over critically important resources such as imagination, skills, initiative, co-operation and determination (resources which belong to a person); discretionary income, savings, property in the form of buildings, land and materials (belonging to the household), which the corporate sector has little or no control over was ignored. Consequently, the products were either too expensive for poorer groups or ill-matched to the needs and benefits of the intended beneficiaries (Payne, 1984).

To dispute this trend, Turner (1976) argues that the tendency of the central government and even international agencies to involve themselves in the detailed planning, building and management of the peoples' dwelling is an absurdity which complemented by private determination of land prices by the aggregated decisions and actions, result in a wastage of resources and increased scarcity by inflating prices or providing unwanted or unusable goods. Turner argues further that the management, maintenance of dwellings and their surroundings and therefore their longevity, depends primarily on the care of the residents and users (Turner, 1976:138).

To be viable the improvement of housing situation in the informal settlements required a change from the short term projects wholly designed and implemented by the authorities to long term collaboration with citizens and their community or neighbourhood organisations. As Abiodun et. al., (1987) puts it:

Poorly housed people do not need a one-off project campaigns so much as a continuous process through which services are improved, infrastructure installed and encouragement given for house improvement or construction. They also want a voice in deciding what is to be done and how scarce resources should be used (Abiodun et al., 1987).

This calls for full participation of the residents in the efforts to improve the housing conditions in the informal settlements. For this to happen, the planners, administrators and implementors of housing projects should work together with the local community.

TOWARDS ACTIVE INVOLVEMENT OF GOVERNMENTS AND AGENCIES IN THE INFORMAL SETTLEMENTS IMPROVEMENT

By the end of the 1960s, many countries had accumulated considerable experience in the idea of informal settlement improvement. In 1970, the United Nations and the government of Colombia jointly sponsored an inter-regional seminar on informal settlements (UN report, 1971). Indeed, slum and squatter settlements may be considered to have entered the international development agenda during this period. A major break through in this new way of looking at the informal settlements however, came up during the United Nations Conference on Human Settlements held in Vancouver, Canada in 1976, where the participating nations for the first time universally acknowledged the fact that informal settlements could play a significant role in the national development process (UN, 1976).

From this period, the settlements were to be considered no more as 'an isolated and temporary phenomena' but rather as essential links between rural and urban development forces (UN, 1978:28). More importantly, the participating governments officially recognised the necessity of taking appropriate measures to improve the informal settlements and to integrate their inhabitants into the national development process.

Although there is a strong evidence that the attitude towards informal settlements was changing, the response of various governments was still threefold:

- (i) Some governments were still using restrictive policies such as efforts to eliminate the settlements through exclusion from services, relocation to the

peripheral areas or at worst eviction through demolition. This policy was however, dying and many governments became reluctant to bulldoze existing informal settlements unless the land was needed for public projects (Hardoy et al., 1989).

(ii) The second type of response was *laissez faire* policies which is basically the practices of officially ignoring the existence of the informal areas and allocating public resources to other development sectors. In this case, many governments could afford to tolerate the settlers so long as they did not try to invade prime real estate or where the settlements they developed were not easily visible.

(iii) The third reaction and which was more favoured by the anti demolition school of thought is the supportive policy, founded on the belief that slum and squatter settlements have an inherent potential for improvement and hence are supposed to be included in the national development agenda. It therefore required the government to accept to act as a stimulus or the residents to improve their own dwellings, through the provision of infrastructure and granting of tenure security (UNCHS, 1982). Some governments grasped this attitude relatively early for instance Ankara with her liberal laws of 1966 which provided for services and credits for housing improvement and responsibility for rehousing the squatters removed from unsafe land. Another example is Delhi which gave virtual recognition to squatter areas by paving roads and providing services (Parry, 1987). In the 1970s and 1980s, the attitude was adopted by many other countries such as Nicaragua, Philippines, India, Pakistan, Egypt, Ghana, Zambia, Botswana and Kenya (Skinner et al. 1987) amongst others.

This attitude led to a housing development programme (world wide) namely slum and squatter settlements improvement programme which is the subject of our study now.

THE IMPROVEMENT PROGRAMME MODEL

This approach to improvement of housing conditions in the informal settlements requires the acceptance of the slum and squatter settlements as legitimate forms of housing which in principle must be improved rather than destroyed. Clearance must be abandoned in all but exceptional cases and replaced by improvement and

consolidation programmes. The government, which cannot build houses for everyone by itself, must recognise and legitimise the constructive efforts of the dwellers of informal settlements by removing the obstacles and constraints to house improvement and by providing infrastructural services. The inhabitants on their part, it is believed, will be able to construct better houses gradually overtime (UNCHS, 1983).

The World Bank tried to promote this kind of approach to housing delivery which was characterised in 1972 as 'progressive development', implying that improvement would be made at a pace dependent on the incomes and preferences of the project households (Strassman, 1982). The salient features of this model have been the co-ordinations of land tenure, public services and community participation (private investment) along with improvement of employment opportunities. The key actors being the donor agencies particularly the World Bank, the Governments of the Project Nations and the project communities (residents of the informal settlements).

To this end, the donor agencies such as the World Bank have played the role of providing the project funds and monitoring teams.

The Governments on their part are supposed to conduct detailed survey in the informal settlements to determine the existing conditions and the abilities of the informal settlement communities. The government should further educate the communities in the need for improved housing and the idea of housing improvement. Following this, the government should establish a working relationship (partnership) with the informal settlements communities through the existing community based organisations (CBOs), or where such organisations are not existing, the government should encourage their formation. The established partnership should then determine the actual needs of the communities and the level to which the needs should be met. The partnership should also define the roles to be played by each party in so far as the improvement of housing conditions is concerned. Finally the partnership should design the improvement project, implement it and eventually maintain it. The role to be played by the government should include:

- a) Educating the community on or about the improvement program and the need to improve the housing condition. This should be done through the community development workers or officers (CDOs).
- b) Regularising land tenure as the situation or project so requires.
- c) Providing financial and technical assistance according to the needs of the community or residents; and providing opportunities for small scale entrepreneurship.
- d) Providing infrastructure and community facilities needed by the community.
- e) Revising the building by-law and planning regulations.

The role of the community on the other hand revolves around:

- a) Formation of community based organisations (CBOs) for working in the program.
- b) Adjusting (changing) their lifestyle to match the requirements of the improvement programme.
- c) Investing time, labour and financial resources in the construction of infrastructures, community facilities and building their own houses.
- d) Participating in the small scale enterprises to raise their income levels and hence their ability to improve their houses.

According to the earlier discussion in this chapter, this model presupposes that:

- (i) The education offered to the residents by the government will make the idea of house improvement acceptable to them, convince them into partnership with the government for the purposes of the improvement and consequently make them change their lifestyle to encourage improvement.
- (ii) Regularising land tenure will make the residents to feel more secure and have confidence and courage to invest in their houses (act as an incentive).

(iii) Providing financial and technical assistance will enhance the ability of those who are not well equipped with money and building technology to build their houses.

(iv) Provision of small scale entrepreneurship opportunity will provide income generating activities to the poor residents so that they can earn some money to invest in building process.

(v) Providing infrastructure and community facilities will make the residents to feel accepted and integrated into the development process, it will raise their standard of living, reduce cost and time for looking for the same facilities and hence encourage investment the house improvement process.

(iv) Revising building by-laws and planning regulations will make the requirements affordable to the community and compatible with their lifestyle hence it will enhance their performance in the improvement process especially if the standard specified are acceptable to them.

The end result of this is supposed to be improved housing conditions, which are to be maintained by both the government and the community.

This is the model that was used to formulate informal settlements improvement policies in places such as Manila in Philippines, Nicaragua in India, Pakistan, Egypt, Ghana, Zambia, Botswana and Kenya. It involved a fundamental change in the role of the government in housing provision, from that of a provider to that of an enabler, who would promote and assist the involvement of others notably the final users, in shelter provision (Skinner et al., 1987).

The model implied that the user should become involved not only in building activities but also in the financing and management of their house construction. Although the urban poor had been doing precisely all these in the absence of appropriate state alternatives, it had not been common for the process to be seen as an important policy (Turner, 1965, 1976; Mangin, 1969). Now however, the poor were being urged to take on the activities that were previously seen as the domain of the state and the construction industry.

SUMMARY

The forgone discussion indicates that the formation and growth of informal settlements occur under widely varying contexts. Each settlement will have its own history shaped by the circumstances in that city. Many of the settlements began as unserviced collection of huts and gradually transformed into solid dwelling units, their growth being rapid either through expansion or increase in density in a limited area.

The reaction of the authorities towards the informal settlements have varied, initially beginning with open hostility through restrictive policies to laissez faire policies and finally to supportive policies. The supportive policies defines the role of the government as that of an enabler, providing infrastructure (services), technical and financial assistance tenure, security and employment opportunities. The residents are placed as the central actors in the design, execution, management and maintenance of their houses. The shift to supportive policies reiterates the importance of informal settlement improvement programs as a logical means of bridging the housing deficit which the construction of finished housing units was incapable of doing.

Whichever position one follows, one thing is certain: where the implications of informal settlements have been ignored, it has tended to mushroom and has asserted its own claim to high priority. Where they have been demolished, it has resulted to only the geographical transfer of the same problem. As Abrams says:

It is a major social and political predicament which officials feel they must deal with realistically if their cities and their political controls are not to be overwhelmed. The solutions however, baffles them and the practical questions for which they seek guidance are; how to control its spread, and how to direct its flow into more useful channels (Abrams, 1966: 17-19)

The scenario as it emerges from the above discussion however, prompts us to argue that informal settlements are dependencies of the whole socio-economic as well as regulatory system. Therefore, to improve the housing conditions in the informal settlements one has to find out the development dependencies dialectic of the settlements, studying the factors affecting their existence and conditions. This is the

approach that the study is going to take in studying the factors affecting house improvement in the informal settlements in Kenya as a developing country where a lot of interplay exists within the systems interested in the informal settlements. However, before this can be done it is better to review the background and development of informal settlements in the urban areas of Kenya and to trace how the improvement programme came to be adopted in Kenya. We will see this in the next chapter.

CHAPTER THREE

INFORMAL SETTLEMENTS IN KENYA'S URBAN HOUSING POLICY

INTRODUCTION

Kenya like any other developing country has been experiencing rapid urbanisation at a rate estimated to be 7.3% per annum in the 1980s (NACHU, 1991) and 15% by 1989 (GoK, 1993). The urban population growth rate has been even higher than that of the country's general population, being estimated at 5.4% during the 1960s, 7.9% during the period between 1969 to 1979 (World Bank, 1991) and 8% during the 1980s (Syagga, 1987; 1991). This has led to the increase in the proportion of Kenyans living in the urban centres from 5% in 1948 to 15% in 1989 (GoK, 1994). The outcome of the above scenario has been the proliferation of self-planned and self-settled informal settlements in many of the urban areas of Kenya. The major towns have tended to have a larger share of this kind of development and such towns include Nairobi, Mombasa, Kisumu, Nakuru and Eldoret.

The history of the informal settlements in Kenya can be traced under three essential periods namely the colonial period, post independence period up to 1974 and mid 1970s upto now. These periods have introduced shifts in the housing policy which in turn has immensely contributed to the nature and extent of informal settlements today.

COLONIAL PERIOD

The informal settlements in the urban areas of Kenya are a product of colonialism just as most of the urban centres are. Most of the urban areas were set up to serve the interest of the Europeans and therefore the Africans who settled in them were often regarded as temporary migrants who only went there to supply the much needed labour. Because of this there was no properly documented housing policy to serve the Africans during the colonial period. Syagga (1987a) states that:

The only official document related to housing was the 1930 employment ordinance which required every employer at all times at his own expense to provide either proper housing accommodation or allowance (Syagga, 1987a:3).

A number of them therefore settled in their own way in the unplanned areas with their number continuously increasing and thus posing a problem to the colonial administration (Parker, 1948).

The problem of squatting, substandard inadequate housing and government concern over such matters is not recent. A report written by the British administrator in 1913 states in part that:

'For months past, those up country natives who are not provided with quarters within the compounds of their employers, have been forced to rent miserable quarters in unsanitary localities of the town and at excessive rents... An enormous number of employees of the government, of hotels and of private firms are absolutely without quarters of their own. An inspection of some quarters rented by native employees of Europeans reveal the conditions under which they have to live. Most of the rooms visited measured 8 by 10 feet and were occupied by four to six boys. The stench outside some of these places was very bad... In many of them the roofs could be touched by the hand while one stands in the centre of the room' (Vanzwanenberg, 1972:22).

Although in 1910 the Nairobi Municipal Council passed a by-law to eliminate informal settlements, a number of illegal quarters were noted as early as 1901. By 1921, for example 12,088 Africans were living in eight separate villages in Nairobi (Etherton, 1971:9). In 1943, Housing Ordinance was passed, but even this contained neither a clear definition of proper housing accommodation nor any stipulation as to how requirements would be enforced. Many employers complied with the legal obligations as imposed by the ordinance by offering housing allowance to employees, while a few institutions such as Government departments, local authorities and parastatals such as Kenya Railways Corporation built some accommodation based on bed space theory. The bed space theory was adopted as appropriate because it was argued that the African man worked in the urban area while his wife and children stayed in the rural area. He therefore required only a bachelor's quarter (Ogilvie, 1946:7).

As a result of this, the housing that was provided was in insufficient number and by 1939, Nairobi for instance had 40,000 Africans in legitimate employment while the actual housing available by then was only enough to accommodate 9,000 Africans (Ogilvie, 1946:16). Because of this inadequacy, the informal settlements continued to grow during the 1940s and the 1950s. Before 1954, all housing provided by the local authorities was subsidised and this made it difficult for housing to be replicable. When the local authorities abolished subsidies in 1954 and started charging economic rents, the workers demanded for an increase in housing allowance from employers to cater for the resulting increase in rental charges. The other alternative for the workers who could not pay such rents was to move to the informal settlements where such rents would not be paid. The informal settlements therefore continued growing while the authorities' hostility towards the same settlements also continued mounting. Stern measures were needed according to the colonialists in relation to the existing settlements to keep the problem from escalating out of control. Demolition therefore continued in the name of safety and public security, maintenance of health standards, curbing epidemics and the general unsightliness of the settlements.

The official colonial view was to regard such settlements as threats, outrage or as a 'blot on the urban landscape,' often harbouring dissidents. Consequently the settlements were often demolished and sometimes their inhabitants obliged to live in the demarcated 'Native Locations'. It is interesting to note the plans made in 1917 for such a relocation of the inhabitants to Pumwani as indicated below:

.....The municipality had decided to remove all the ad hoc African villages and develop just one special location. The municipality looked towards the South African urban experience for a model..... The characteristics of the proposed development were as follows: (a) the houses were to be of wattle and daubs, 'owing to the lack of funds heads of Nairobi families should be encouraged and assisted to build their own houses' but the 'municipality reserves to itself the right in five years time to demolish the houses and erect on the spot a more suitable form of house' (Vanzwanenberg 1972:28).

The lack of security of tenure is notable in this case. Ironically, this implies that even though it was the local authority relocating these people into a particular place, the settlement was still illegal. Illegality of these settlements was important to the

colonial government because it meant neglect at best and demolition at worst, rationalised in the name of health and security. Government improvement was quite impossible because it would legitimise an illegal act and encourage rural-urban migration. Safety was a major concern to the government and the city as is shown below:

The district commissioner, Nairobi area, reported that an increasingly dangerous security situation was being created in Nairobi by the continuous migration of job seekers into the city and wished to emphasise the urgency of the situation and the need for immediate constructive action..... The police together with city inspectorate were holding the position with great difficulty and an average of 30-40 new illegal structures were now being demolished each week in accordance with the cabinet's directive. In Buru Buru and several areas of privately owned land the situation was getting out of hand. Immigrants from Kiambu, Machakos and Fort Hall were deliberately and continuously rebuilding illegal houses as fast as they are demolished... no constructive action has so far been taken... the DC and his officers, the police and the city council staff were faced with increasingly difficult and unpleasant task (Nairobi City Council-NCC-, 1964:2).

In this respect, the colonial government failed to recognise that the poor housing condition was not merely a problem of control as could be seen through the governments reactions (demolition) and regulation. The authorities of the day failed to link the informal settlements to poverty amongst the Africans which was also a failure of the government to provide good housing and appropriate wages for the people. Since wages determined the ability of the people to build or rent good houses, and to maintain health standards, yet the wages were kept low intentionally, the African could not afford to live in the appropriate housing standard imagined by the authorities.

That these areas were being rebuilt in the same place almost as soon as they were demolished is an indication of the persistence of this section of the population in providing itself with shelter close to the best opportunities for casual employment.

In concluding, although scholars such as Obudho (1991) argue that prior to the 1960s the government of Kenya had a *laissez-faire* attitude towards informal settlements, this is not entirely true. From the reactions we have seen above, we can argue that the governments' attitude was very restrictive.

INDEPENDENCE POLICIES

The reality of informal settlements as a means of finding shelter by the poorer residents of the urban areas was clearly evident in the 1960s, but this was not yet recognised by the official thinking and policy. Officials at the highest levels of Kenya's new African Government saw the growth of informal settlements so near to the city centre as an eye sore and wanted immediate action taken. Perhaps the most sensitive and significant obstacle in bringing about recognition of the informal settlements was the natural pride associated with the capital city, which had by this time replaced colonial exclusiveness as a reason for insisting that if the poor cannot afford to live in the city then they must go back to the rural land. This attitude resulted in the demolition of the informal settlements. It is however wrong, to assume that a degrading environment will automatically result from allowing the poor to live in the city. Nobody lives in a squatter settlement by choice, but if the opportunities for improvement within the poor's limited means are not available, then they have no choice but to live in the informal settlements (See Etherton, 1971).

In 1964, the Nairobi City Council and the Government of Kenya (GoK), for instance, initiated a housing redevelopment program to aid squatters living just a few hundred yards from the modern central areas of Nairobi. This programme involved tearing down the squatters' 'illegal' shacks to improve what was felt to be a dangerous and unsightly blight on the capital of the newly independent Kenya, a threat to the good health and civic order, that should be demolished and the occupants relocated or sent back to the rural areas.

It was however soon realised that among other things, there was a serious housing problem in the urban areas as a result of the sudden influx of migrants in the 1960s and especially after independence. Kenya's housing policy was therefore spelt out in the sessional paper Number five of 1966/7 titled Housing Policy in Kenya (Bloomberg and Adams, 1965)

During the 1960s, the official acceptable urban houses, based on the interpretation of Kenya's building by-laws and Public Health Act, and as indicated in the sessional paper number five of 1966/7, was defined as an urban housing unit of suitable materials and having at least two rooms, plus its own kitchen and a toilet, with a

maximum of five occupants (Development plan 1966/70). This was the conventional house and practically set minimum standard expected of all housing in the urban areas. Anything below this was illegal and unauthorised and was liable to demolition. The general desire of the GoK at this time was to move towards a situation where every family in Kenya would live in a decent home, privately or state sponsored, but providing the basic standards of health, privacy and security (Sessional Paper number five, 1966/7).

As an implementation of the 1966/7 policy, the GoK and the local authorities concentrated their efforts on the provision of conventional housing with the help of HFCK and NHC. However, as Temple (1973) and Silberman (1972) observed, the publicly provided or funded housing through the institutions upto the early 1970s was biased in favour of the middle and upper income groups yet nearly 70% of the demand for urban housing was from the lowest income groups. The result of this was that the majority of the urban population was left without housing; and lacking access to conventional channels to housing provision, they sought accommodation in the proliferating informal settlements. As their number increased, so was the increase of the informal settlements constructed using any form of materials and lacking in essential services.

The most negative aspect of the 1966/7 development plan that stems from the sessional paper number five of 1966/7 is the fact that it ratified the demolition of the informal settlements and the paper states in part that:

'If towns are not to develop into slums and centres of ill health and of evil social conditions, low-income urban housing and slum clearance must continue to form the major part of the nations housing programme (sessional paper No. 5 of 1966/7: 7).'

By this time, the urban areas had several informal settlements and the policy was used as a tool for bulldozing them. Consequently the authorities knocked down more housing units than they built. Upto 1970s slum clearance was strongly advocated and the history of informal settlements during this period is full of demolition. In 1970, 49 informal settlements containing approximately 7000 dwelling units and accommodating nearly 40,000 people were demolished by the bulldozer or pulled down by fire (UNCHS 1987b: 136; Hake 1977). A repeat of the

same process along Nairobi river valley a few years later resulted to a reduction in number of informal sector jobs, although clearance had been postponed by 1970/1974 development plan, to until the housing shortage is substantially reduced. In spite of the demolition measures, more structures came up and by 1972, housing units in the informal settlements of Nairobi had grown to 22,000 (Chana; 1973).

The rationale for demolition as a policy was questionable by 1970s because it was based on the premise that the GoK would manage to reduce rural to urban migration and to provide adequate housing for all, yet the GoK had failed to fulfill this. If the GoK admitted that it had failed as can be interpreted from the 1970/74 development plan which postponed slum clearance, then why couldn't the authorities accommodate the people's efforts to house themselves? As Etherton (1971) puts it, experience from all over the world has shown that if the urban economy is unable to provide the work and facilities sought by immigrants and the growing population, independent development will take place and gradually overtake official development policies.

CURRENT STRATEGIES

As demolition of informal settlements was going on in Kenya and elsewhere in the world a new orthodoxy was gaining ground championed by Turner and many other researchers and scholars alike. The aim of these authorities was to make the informal settlements legitimate in the eyes of the governments. Etherton(1971) states that:

'The main purpose of describing Mathare Valley is to bring the problem of uncontrolled settlements into focus in the hope that it will no longer be regarded as socially marginal and physically insignificant, but rather as one of the most crucial aspects of the city's future development' (Etherton et al. 1971).

By this time, it was realised that the urban households could not afford the minimum legal housing. The housing by-law study, (using the definition of conventional housing) points out that in the 1970s approximately 65% to 70% of the households in Nairobi and approximately 80% in other urban areas of Kenya could not afford the minimum legal housing (SYA et al. 1980, Vol. 2, p2, 32-33), assuming that families would be spending 30% of their incomes on housing. The study concludes

that the low income families are presented with the choice of either staying in the self settled areas or paying so much for legal housing that they cannot afford either essential goods or services. Beginning in the mid 1970s, there was a clear shift from the conventional housing policy towards what has been referred to as 'realistic' (NCC, 1973) or 'pragmatic' housing provision strategy (UNHCS, 1983: 12; Amis 1980: 137) as evidenced by the urban land and shelter projects. The 1974/78 development plan shows that the government had accepted that a more realistic policy should be pursued. Demolition of informal settlements was to stop and in cases where it was unavoidable, it would not be undertaken without providing the affected households with alternative residences.

The current strategies can be called supportive policies, adopted by the GoK to improve the living conditions of the urban poor and can be summarised as follows: A stronger focus on the urban poor or low income groups; increasing commitment to provision of low cost shelter through reduction in building and planning standards; shift from completed, contractor-built housing to either housing extendable by owner/self construction or serviced sites; increasing acceptance and legalisation and consequent improvement of unauthorised settlements; a shift from subsidisation of land, infrastructure, community facilities and interest rates to cost recovery strategy; an active promotion of the private sector/capital participation in low income housing and an increasing reorganisation of the institutions to 'efficiently' provide and manage urban land and shelter (USAID, 1980: 12-13).

The new strategy gained weight in Kenya through the intervention of World Bank and USAID who were during this period involved in a World wide promotion of poverty oriented provision of shelter in form of site and services schemes and squatter and slum upgrading programmes. Many studies carried out in Kenya during this period supported the improvement of informal settlements. ILO (1973), NCC, (1973), Clal et al.(1976) and Waweru et al.(1978) not only recommended the improvement programme, but the last one even prepared specific projects for the implementation of the improvement strategy. Also as part of the second urban project, Housing by-law study was set up, to recommend reduced standards for low cost housing (SYA et al., 1980).

The UNCHS seminar in 1983 summarises the strategy quite well entitling them 'pragmatic solutions' to provision of land for the poor' (UNCHS, 1983). The role of the government here was to provide the land, security of tenure and basic services leaving the rest to the private sector. To this end the strategy requires the government to regularise and improve the informal settlements.

The strategy appears to have succeeded in gaining roots in Kenya and by 1978, the World Bank had not only persuaded the GoK to allow informal settlements in place but had in fact committed the GoK to improve them. In her submission to the World Bank for the Second Urban projects, the GoK proposed Mathare Valley, Baba Dogo and Riruta (Nairobi), Chaani and Mikindani (Mombasa), and Manyatta and Nyalenda/Pandpieri (Kisumu) for the improvement. The third urban projects also initiated improvement programmes in Nakuru, Eldoret, Thika and Kitale.

THE IMPROVEMENT PROGRAM

Coming at a time when Kenya's economic and political development had peaked in the mid 1970s, the second urban project followed an optimistic and ambitious plan to extend and simplify the experience of first project (The Dandora Site and Service Scheme in the capital city of Nairobi) to the secondary cities of Kisumu and Mombasa. In its contents, the second urban project introduced improvement of the informal settlements as centre piece, primarily in the low-density peri-urban villages which permitted the purchase, subdivision and resale of infill plots. In addition to the shelter component the project proposed to include land tenure regularisation and the provision of infrastructure, nutrition and small scale commercial support and industrial entrepreneurship components.

Shelter component: This component included the provision of the necessary infrastructure such as roads (access), water, sewage connection or exclusive access to a wet core, electricity network and security lighting, and refuse collection facilities by the authorities. The construction of the building structure was to be left to the inhabitants themselves. However, a building loan was set to be made available to the qualified plot holders, other than just the settlement tenants, to enable them to improve their houses to the required level. The required level was

defined as a building with two rooms, a kitchen and wet core, and constructed of sound building materials (World Bank, 1978A: 22-23).

Regularisation of land Tenure: This involved the following:

- a) Defining all occupied sites to convert them into plots and consequently conveying the freehold interests or 99 years leasehold interests in them to appropriate persons through adjudication.
- b) Acquisition of all the land in the project areas required for trunk infrastructure and public facilities by the Commissioner of Lands, compensating the affected persons (owners) accordingly and thereafter, granting to the municipal councils the land for the purposes intended on freehold or 99 years leasehold basis.
- c) Acquiring unoccupied sites within the project areas, subdividing and leasing them out to qualified persons for 99 years and thereby creating infill tenants.
- d) Allocating plots within the respective project areas to people whose land have been acquired for public purposes.

THE ROLES OF THE PARTIES INVOLVED

The participants in the improvement project were mainly four, namely the Credit Association (The International Bank For Reconstruction and Development and The International Development Association), the Central Government of Kenya (GoK), the Local Authorities (Nairobi City Council, Mombasa Municipal Council and Kisumu Municipal Council) and the inhabitants of the settlements.

To achieve the aims of the project, the roles of the parties were as follows:

- a) The Credit Association: The Credit Association undertook to provide a total of 50 million US dollars for the purposes of the project, technical assistance to the municipalities including 36 person months assistance. The association was also to approve the design of the projects, implementation works and from time to time, certify the performance of the project (Loan Agreement, 1978).

b) Central Government: To receive the project funds from the Credit Association and disburse it to various project municipalities. A rating valuation unit was to be established in the Ministry of Local Government to assist local authorities in carrying out periodic rating valuations of properties in their areas of jurisdiction. The government was to undertake the acquisition of the required project land and to regularise the land tenure in the project areas through adjudication process, to review the building by laws and planning regulations in liaison with the local authorities and set the requirements to levels which would be affordable to the low income urban dwellers. The GoK was also to monitor and evaluate the projects through the then Ministry of Housing and Social Services, re-organize the National Housing Corporation (NHC) for future implementation of low income housing project in the smaller cities of Kenya and make it responsible for the recovery of the loan funds given to inhabitants.

c) The Local Authorities: Were required to stop demolishing the existing settlements. Secondly the burden of design implementation and maintenance of the project was placed squarely on the shoulders of the municipalities. To this end, the local authorities were to establish Housing Development Departments (HDD) primarily to design the standards and layouts of the project areas, the dwellings, infrastructure and community facilities and consequently construct the infrastructure, community and commercial facilities to the satisfaction of the Credit Association. The municipalities were to disburse the loans for building and small scale industrial and commercial support to the inhabitants, and eventually to recover the disbursed money (the loans). The municipalities were also required to recover the money invested in the construction of infrastructure and community facilities through land taxation where land registration is completed and through building levies for the construction of primary schools. Finally the municipalities were required to maintain and operate the facilities (Infrastructure and community facilities), or cause them to be maintained and operated, in accordance with sound engineering, educational, administrative and financial practices.

d) Inhabitants: On their part, the inhabitants were required to build their houses or improve on the existing ones to the standards as we have described earlier in this chapter (Two rooms, kitchen, toilet and of sound materials). Secondly the

inhabitants were required to pay land taxes and building levies to cater for the investment in infrastructure and community facilities and finally to repay the building or commercial industrial support loans where applicable.

The improvement program has had a chequered history with considerable successes but also significant failures to curb the problem of informal settlements. By 1983, out of the total estimated number of housing in the urban areas, 41.5% were classified as semi-permanent or temporary and most of those were in the areas designated as informal settlements (GoK, 1983: iii). The 1984/88 Development Plan indicated that the situation of the informal settlements in the country had not changed for the better, in fact, there was every indication that it had worsened. The population growth rate of the informal settlements in Kenya is estimated to be between 4 to 6 percent per annum and in some areas such as Kibera settlement in Nairobi, it is estimated to be 12% per annum (Syagga and Ondiege, 1993). This has resulted to a large number of people living in informal areas, with consequent deterioration of the living environment. It is estimated that currently the informal settlements constitute 40% to 45% of the population in Kenya (UNICEF, 1989).

As the programme reached its conclusion in 1986 the World Bank noted that the success of policy change and improvement programmes depended on sustained presence and consistent dialogue as well as continuous and thorough supervision. They further noted the danger of their magic formulae and concluded that the project finally did not help poor families to afford housing and that progressive (self-help) housing construction model may not apply in Kenya. While the former conclusion is true the latter is contestable since progressive housing is something that has lived with the Kenyan communities since time immemorial, done in different ways and different times, and as possibilities gain ground.

SUMMARY

The review of the problem of informal settlements in the urban areas of Kenya does not suggest a decreasing trend but rather that the same problem which has existed for about a century now is only increasing. Despite all the strategies that have been adopted under different policies, the number and sizes of informal settlements is on the increase while the living conditions in them are deteriorating day by day. If the

current trends are to be slowed, halted and then reversed, some basic questions have to be addressed. The principal question is however - what are the factors that make the people to own houses that are in such conditions as found in the settlements? Inevitably, one must turn to the settlements themselves and the people who own the houses in them in order to answer these questions.

CHAPTER FOUR

BACKGROUND OF THE STUDY AREA

INTRODUCTION

This chapter first gives the general background information of Kisumu Municipality where Manyatta settlement is situated. A brief background of Manyatta settlement is then given including the location of the settlement, the physical characteristics and the population size. The chapter then presents the data concerning the existing housing conditions in both parts of the settlement the purpose of which is to form the background for the analysis of the factors which are responsible for this situation. The analysis of the factors affecting house improvement is however done for both parts separately such that finally a summary is done to draw out the similarities and differences in those factors which affect the ability of the people to improve their houses in both parts of the settlement.

GENERAL BACKGROUND OF KISUMU MUNICIPALITY

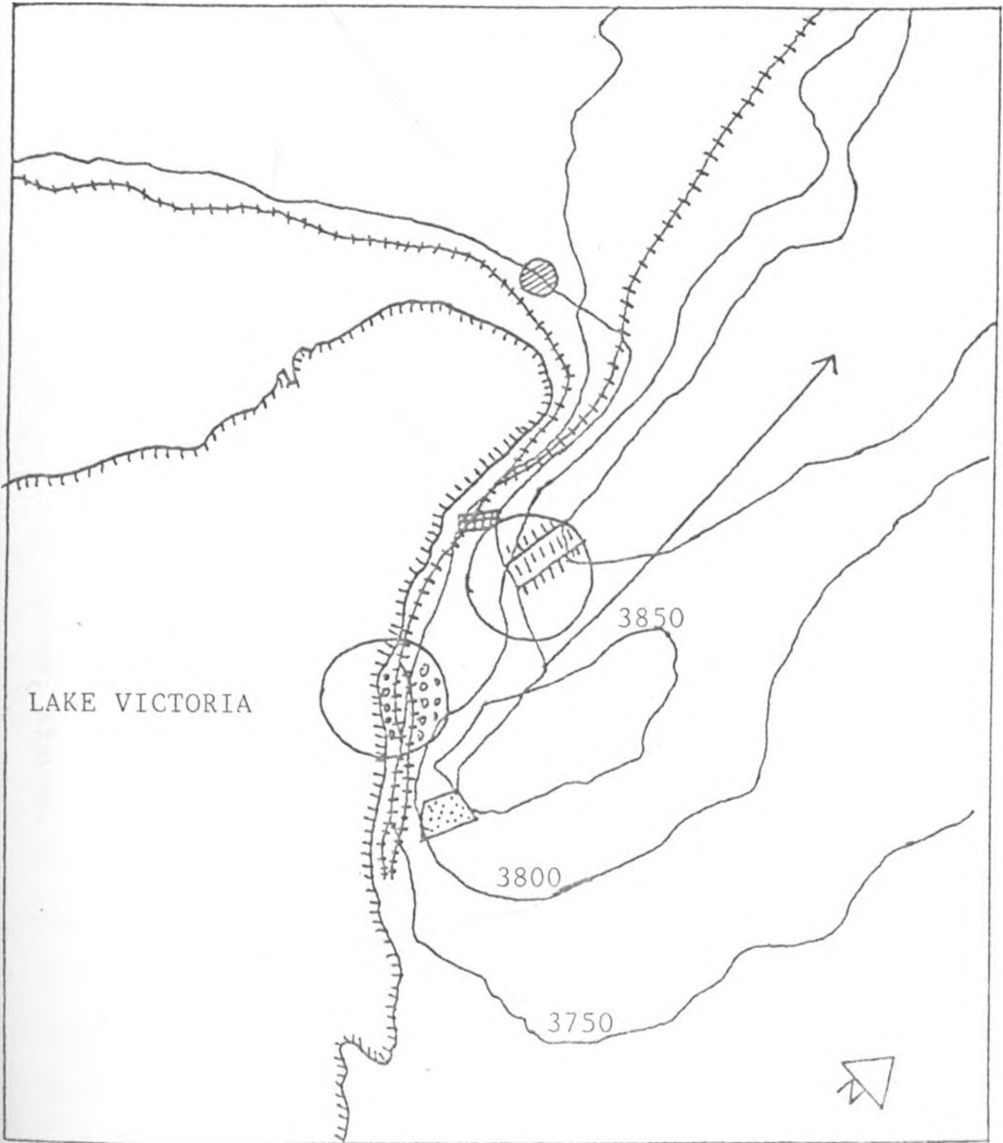
Historical Development

Kisumu, formerly known as Port Florence is the largest town in Western Kenya region and the third largest in the Republic of Kenya. The first skeleton development plan for Kisumu town was drawn in July 1899, which included landing places and wharves along the Northern lake shore near airport road, Government buildings and rental shops. Another plan was drawn in May 1900, allocating plots to a few European firms as well as Indian traders who had travelled to Kisumu during the construction of the Uganda Railway and had decided to settle down at the expanding terminus. The second plan included a flying boat jetty, now used by Fisheries department and other government institutions having boats.


Later it was realised that the site originally chosen for the township North of the gulf was unsuitable and a change was effected in 1903 to the ridge rising from the Southern shore where the town stands today. It was during this time that a basic layout of the town was made followed by the construction of a number of buildings, notably the former Provincial Commissioner's house, now state lodge and the old

MAP NO. 1

KISUMU MUNICIPALITY IN THE 1920s



LEGEND

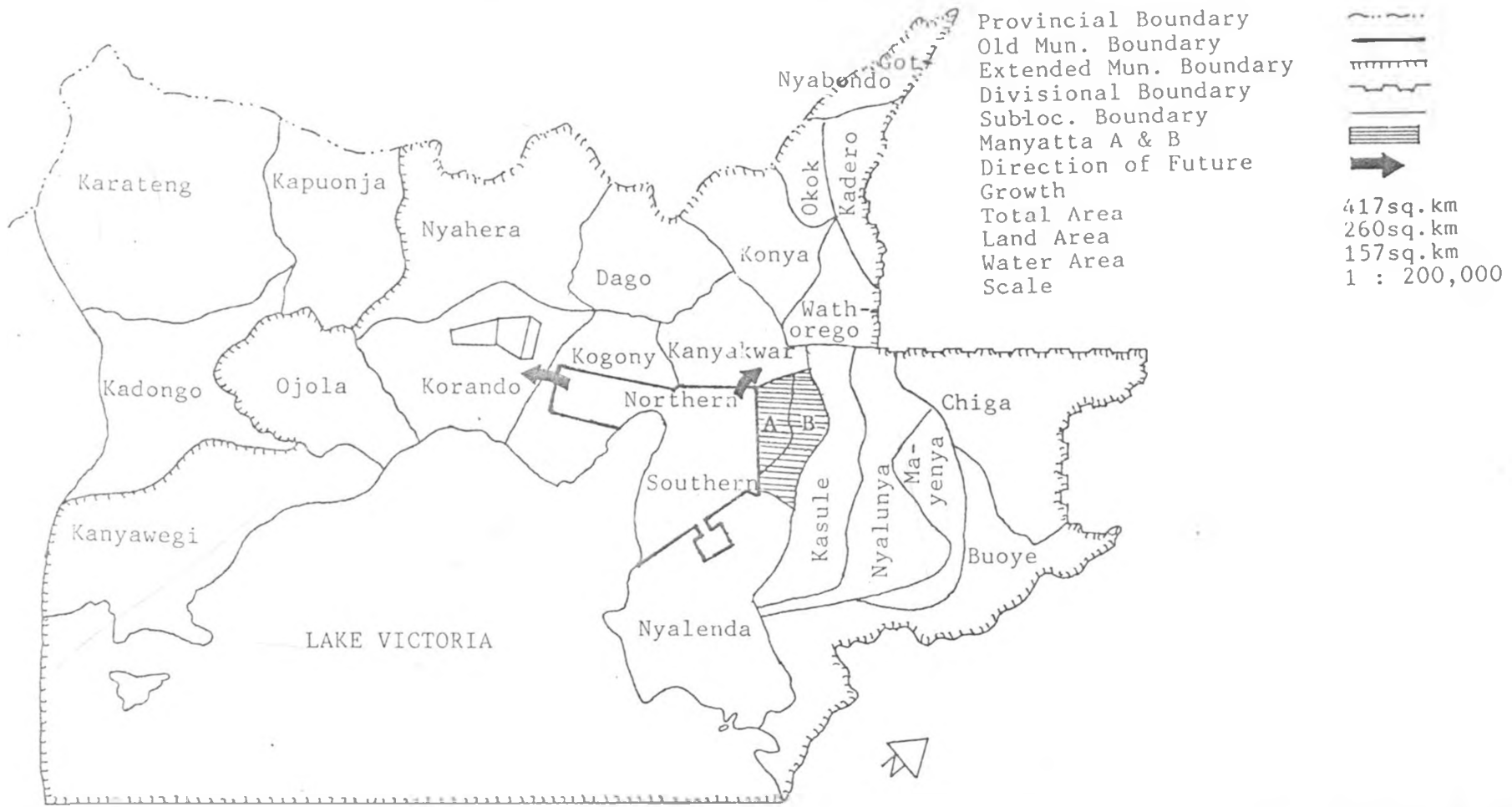
-  Administration and Dukas
-  New Administration HQ.
-  New Bazaar
-  Port and Railway Station
-  Industries

Source: Kisumu Municipal Council

MAP NO. 2

KISUMU MUNICIPALITY BOUNDARIES

LEGEND



Source: Department of Land Survey, Kisumu.

prison, now administration police lines. This left 'old Kisumu', a two row of 'dukas' on Mumias road, North of the Gulf, which was demolished later in the 1920's when new plots became available along Odera and Ogada streets acquiring the name 'New Bazaar' (see map No.1).

The town of Kisumu was essentially a Railway terminus and a lake port for many years, becoming a trade centre with connections to Tanzania. The first Bank to have a branch in Kisumu was the National Bank of India in 1912, followed by Standard Bank in 1918, Barclays Bank in 1937 and Bank of Baroda in 1959. Many developments took place in the 1930's and it was this time that many government and private houses were constructed, including the present post office and Nyanza Picture Palace. Other developments carried out during this period were the law courts, Town Hall, the Municipal Social centre, the Luo Union Building (Ofafa Memorial Hall) and a number of churches such as the Roman Catholic Kibuye Church. In 1947/8, electric power was installed. The town was elevated to the status of Municipal Board in 1940 and to that of Municipal Council in 1960. The late 1960s and early 1970s saw very little development in Kisumu and there was an acute shortage of houses, shopping and office space.

In 1972 the Municipal boundaries were extended from the original 50 square kilometres to 417 square kilometres, thus embracing Manyatta, Kasule, Nyalunya, Bwoye, Chiga, Nyalenda, Dago, Wathorego, Kanyakwar, Kanyawegi, Ojola, Korando, Kogony and Mkendwa sub-locations (see map No.2). The establishment of industries in the 1970s and 1980s which included Kisumu Cotton Mills, Kenya Breweries Limited, Kenya Matches Limited etc. brought industrial life back to the town and imply that Kisumu Municipality is set for a building up population as people continue to migrate there in search of job opportunities.

The area surrounding the town has three major sources of income in the fields of agriculture, fishing and business and manufacturing industry. The government sector employs a significant number of people amounting to about 19% of the total population. The private sector employs 25% of the population, 46% are self employed and the remaining 10% are unemployed (Kisumu Municipal guide, 1989). Agriculture itself does not give adequate support to the population because of

inadequate and irregular rainfall and shortage of agricultural land. The majority of the residents are low income earners, for instance, approximately 78% earn less than 5000 Kshs. per month (Kisumu Municipal guide 1989).

Location, climate and physical characteristics

Kisumu Municipality is located in Kisumu District within the lake Basin in Nyanza Province of Kenya. It lies between latitudes $35^{\circ} 55'$ East and $34^{\circ} 55'$ East and longitudes $0^{\circ} 00'$ South and $01^{\circ} 12'$ South. It is situated at a rising attitude from 1131 meters (3850 ft) on the Southern part to about 1180m (3900 ft) in the North Eastern part. The Municipality stands on a down faulted lava valley which extends from some 129 Km (80 miles) from the lake until it is concealed beneath the volcanic outpourings of Tinderet-Nandi-Hills to the North East (see map No.3). It lies in the equatorial zone but this is substantially moderated by altitude, wind flow and topography. Consequently, rainfall and temperatures are moderated and demonstrates a bimodal pattern (fig 1). Rainfall in this area ranges from a mean annual of 875 millimetres (35 inches) in the lowest part, in the Nyanza Rift zone and the associated lowlands to just over 1200 millimetre (50 inches) in the highest parts. Long rains fall between March and May and the short rains fall between September and October leaving the rest of the year dry and hot with occasional showers. Mean Annual Maximum Temperature ranges from 25°C (77°F) to 30°C (86°F) while the Minimum Temperature ranges from 18°C (38.8°F) to 9°C (22.6°F), see figure 1.

The Municipality is topographically bounded to the North through the North East by Kisian-Nyando Hills, lake Victoria to the south and Miwani - Kibigori - Muhoroni Sugar Plantations and the Kano Irrigation Scheme to the East. The low lying land to the East and South East is swampy and subjected to floods. The land to the North East is on shallow soil suitable for building houses. The area to the west of the Airport is composed of black cotton soil which is of very high agricultural value but expensive to developed (Kisumu Municipality draft Development Plan, 1983). Thus possible future growth is determined by the thresholds and is evidently set for the East and the West (see map No. 3).

Figure 1



Source: Physical Planning Department Kisumu.

Housing Situation

The process of immigration caused by search for employment and natural population growth have fostered a trend of high population growth rate, a phenomenon which has in turn placed a lot of strain on the meagre resources of the Municipal council. The population which is said to be 255,381 according to 1989 population census results (GoK, 1994) and was estimated to be 350,000 by 1991 with a growth rate of 6.5% per annum (KMC, 1991), has consequently overweighed the supply for dwelling units resulting to a significant housing problem.

As is common in many Municipalities of Kenya, new families in Kisumu Town experience great difficulties in trying to find a house or accommodation at a price they can afford. They can even fail to find a home and be forced to crowd into accommodation held by relatives or friends. There is shortage of executive, junior management and lower income housing alike. Many of the official or the conventional houses which serve the Municipality were constructed in the 1950s and the early 1960s. These include Lumumba, Ondiek, Okore, Makasembo, Mosque, Arina, Tom Mboya, Milimani and Ouko. In the late 1960s and the 1970s, little housing development took place namely USAID housing project and Migosi site and service scheme. The so called conventional housing consists of only 10,578 houses, 179 maisonettes, 710 flats 1,834 Swahili type of housing adding up to 11650 dwelling units (23.4%). The rest of the housing is provided by the informal sector, amounting to 36,544 dwelling units (MoW, 1986). It is therefore, not surprising to find that there has resulted a subsequent growth of vast and environmentally poor shanty areas just outside the old municipal boundaries.

The process of disorderly sprawl is taking place within the framework of the traditional East African settlement structure, and is increasingly moving from a purely rural to primarily urban pattern. The informal settlements that form the subject of this research fall in the extended boundaries of Kisumu Municipality, just outside the old town area where they form a ring extending from the South through the North to South West of the town. They fall within Nyalenda/Pandpieri, Manyatta, Kanyakwar, Obunga, Nyawita, Bandani and Otonglo areas. There are others which exist within the boundaries of the old town for example Manyatta Arab

and Kaloleni. For those informal settlements in the extended boundaries of the town, the system of land tenure is freehold or customary on transition to freehold land ownership. But those areas within the old town boundaries are existing as tenants at the will of the Municipal council.

The first attempts to improve the housing conditions in the informal settlements in Kisumu began in 1978 through the second urban project sponsored by the World Bank and implemented through Housing Development Department of the Municipal Council. Manyatta the study area is one of the settlements benefiting from this programme in which Kisumu Municipality benefited to the tune of about 300 million Kshs. (KMC, 1993). However, to paraphrase the words of Syagga in 'the Myths and Realities of low cost Housing in Africa'; Kisumu is currently under the siege of severe housing crisis which is monumental in dimension and disturbing in perception. Monumental because of the large numbers of the people living in extremely poor and unhealthy neighbourhoods such as Bandani and Obunga. Disturbing because of the recurring nature of the problem within the municipality in spite of the efforts of the Government and the International community to eradicate or minimise the scourage. It is estimated that 73% of the population in Kisumu Municipality live in inadequate shelter with lack of services (Syagga, 1987a).

The shortage of housing and the problem of informal settlements is a major and complex one, which has to be faced if Kisumu is to grow in an efficient and or a healthy orderly manner.

MANYATTA

Location

Manyatta covers an area of approximately 7 square kilometres (180 hectares) and is divided into two parts namely A and B, covering an area of 3 square kilometres and 4 square kilometres respectively. It is located on the western side of the Kisumu town, approximately 3.5 kilometres from the Central Business District. Manyatta was originally outside the old town boundary on customary land. However, with the 1972 Municipal boundary extension the settlement became entirely under the jurisdiction of the Kisumu Municipal Council. The settlement is bounded on the

North by the Kibos Road, a tarmac roadway leading to the Sugar Research station and the Railway station. To the west, the settlement's limits are defined by the Kisumu By-pass (ringroad), along the old Municipal boundary. The Southern and Eastern boundaries are defined by a peripheral road following approximately the 3790' contour in the south and the 3795' contour in the East (WAA, 1977:14). Beyond the By-pass on the west, the Nyanza General Hospital and Arina Estate limit the expansion of Manyatta. To the east and south of the settlement is a poorly drained and gently undulating agricultural plains (fast turning into purely residential settlement), dispersing into the horizon.

Physical characteristics

The area is generally flat, slopping gently and evenly towards the south east. The ground is stable with the subsurface consisting predominantly of murram covered by a thin layer of top soil (200 - 300 mm). Some rock outcrops of boulder consistency and numerous pebbles are dispersed throughout the site. Beyond one metre deepness into the ground is rock. Nevertheless, the ground is stable with good drainage characteristics, except for the southern and eastern ends of the settlement which is covered by black cotton soil to more than one metre deepness.

Population

By 1989, Manyatta settlement had a total population of 52,138 persons out of which 37,913 lived in part A and 14,225 lived in part B part. Out of the total population of Manyatta settlement, 48.6% in part A and 46.3% in part B are females. There is high building and population density giving rise to 12,638 and 3,556 persons per square kilometre in part A and part B respectively.

According to our survey, the plots within the settlement have an average size of 0.1125 hectares and an range of six to seven dwelling units (mostly rooms) occupied by families of approximately four to eight persons. In certain cases as many as 15 housing units were recorded in non-storied building structures. Prior to the implementation of the improvement programme, the average number of housing units per plot was four units (KMC, 1993). The increased density can be attributed

to the fact that many people have been attracted by the improvement measures and also to the natural population growth.

Condition of houses and physical infrastructure

The housing structures in Manyatta settlement exhibit extreme conditions as far as building conditions are concerned. The building types range from grass-thatched, mud and wattle huts to relatively sophisticated blocks of houses and flats (plate 1 to 6).

According to our survey 40% of the plots in part A and 44% in part B have what can be described as a house, that is to say a completely or semi-detached building structure with at least two rooms and a cooking place. The majority of the plots in both parts of the settlement have either 'L', 'I', or 'U' shaped tenement structures of single room dwelling units only, or both tenements and houses (table 4.1). This is so because this type of development is easy to extend when need for more space arises.

In a majority of cases i.e. 60% part A and 66% part B, the plots are occupied by houses constructed of basic semi-permanent building materials mostly mud and wattle walling and galvanised iron sheets (GCI) roofing, 17.5% of the plots in part A and 10% in part B have both semi - permanent and permanent dwelling units while only 22.5% of the plots in both parts have permanent houses. Temporary structures were observed only in part B where they constituted 1.25%.

The structural conditions of the buildings are generally poor throughout the settlement. Approximately 33% and 29% of the building structures in part A and part B respectively are relatively in good condition, exhibiting a high degree of structural soundness and thus requiring no repair or only very minor improvements. Most of these buildings are recent, built of concrete blocks or clay bricks, on excellent foundations and some even have glass doors and windows (plates 5 and 6). However, the remaining 67% of the houses in part A and 71% in part B require structural improvements ranging from the provision new roofs (plate no, 7), proper walling or plastering (plate no, 8), new foundations and floor plastering. 32.8% of the houses in part A and 26% in part B are actually dilapidated and need to be

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totally replaced (plate 3 and 4). These buildings are unsound, lacking even the most basic characteristics normally associated with adequate shelter.

Table 4.1: Type Of Structures (buildings)

Structure type	Part A (%)	Part B (%)
Houses only	40	44
Tenements only	35	30
Hses. and tenem.	24	24
Flats	1	1
Huts	—	1
Column total	100	100

Source: Manyatta settlement plot owners survey (1993).

Table 4.2: Nature Of Structures.

Nature of struct.	Part A (%)	Part B (%)
Permanent	22.5	22.5
semi-perm.	60	66
Perm and semi-per.	17.5	10
Temporary	—	1.5
Column total	100	100

Source: Manyatta settlement plot owners survey (1993)

Table 4.3: Condition Of Structures.

Condition	Part A (%)	Part B (%)
Good	33	29
Req. repair	34.2	45
Dilapidated	32.8	26
Column total	100	100

Source: Manyatta settlement plot owners survey (1993).

On average, the room sizes are small, generally 10 by 10 feet especially for the tenements and well known amongst the residents as 10 by 10. Most of the windows

and doors (namely 75%) are wooden and small thus making the dwelling units dark when they are closed. Ventilation is poor and the rooms are especially hot during the dry seasons.

Gauged against the by-law requirements, 40% of the buildings in part A and 33% of those in part B can be said to have met the minimum requirements; the rest can be considered substandard. Considering that house improvement in the informal settlements is supposed to be incremental, final attempts were made to qualify any attempts by the developers to effect positive changes to their buildings as improvements. In this respect, approximately 71% of the plots in part A and 80% in part B had undergone improvement efforts, which did not necessarily lead to the buildings being better than what used to exist on the plot by 1978. As a whole, attempts at effecting improvement were higher in part B than in part A.

The predominant form of improvement was the extension of the building to provide additional space (rooms) mainly for rental purposes since households felt that through this they will benefit more directly. Owners also placed higher priority on improvement of the actual dwelling unit (more so by adding rooms and plastering walls) rather than on installation of utility services. According to our survey, 66.75% of developers in part A and 71.5% in part B placed first priority on dwelling space additions. This was followed in importance by the building fabric (roof, wall and floors) which was the first priority of 28.75% of developers in part A and 22.5% in part B.

Building services was accorded the lowest priority and only 4.5% of the developers in part A and 6% in part B had it as the first priority. Since the beginning of the program in 1978, 68.75% of the developers in part A and 77.5% in B have carried out addition of dwelling units in their plots, 2.5% in A have reduced the number of dwelling units and 28.75% in part A and 22.5% in part B have maintained the same number. 50% of the plots in part A and 61.25% in B have completely new buildings, 27% in part A and 21.5% in part B have the previous old buildings and 23% in A and 17.25% in B have both old and new buildings. The increase in the number of dwelling units in part A is largely for rental purposes while in part B it is largely associated with attempts to create more space for the family members.

Cooking facilities

Specifically designed cooking place exists in only 48% of the houses in part A and 53% in part B. In the rest of the houses, cooking is done in one corner of the room or in some cases in no specific place at all. The houses have no proper provision for food storage.

Sanitation

The prevailing sanitary conditions in this settlement are generally poor. The number of toilets and bathrooms available is very small compared to the number of users. Only 9% in part A and 5% in part B have water bone toilet facilities. 87% and 90% of the plots in part A and B respectively use pit latrines, while the 4% in part A and 5% in part B have no specific provisions for toilet and bathroom.

More than three quarters of the pit latrines in both parts are in poor condition, some are full and requires emptying while others are broken down. 25% of the pit latrines have bear earth flooring. Taking that the plots have an average numbers of six to eight dwelling units and four persons per household, it means that on average the number of users per toilet ranges from 16 to 32, given that there exists in most cases only one toilet in every plot. Only 14% of the plots in part A and 17% of the plots in part B have well definite bathing facilities. The rest of the plots either uses the toilets as bathrooms or their dwelling units. Sometimes the residents have to wait until night so that they can bathe in darkness in front of the dwelling unit.

Although the building requirements normally state that the pit latrines should be situated at a minimum of 30 feet from the nearest habitable room, this is not so in Manyatta where in many cases pit latrines are within 10 feet from the rooms due to lack of extension space. Some toilets even have no doors yet they are under intensive use (plates 1, 3 and 7).

Water

Water is distributed in Manyatta through private individual connections, private water kiosks, wells and bore holes. Previously there used to be public water kiosks provided by the Municipal council and the Ministry of health. However, these are

no longer functioning. From the data, only 9% of the plots in part A and 7% in part B have individual water connections to the house. The rest purchase water from the water kiosks or get it from the wells and boreholes which also face the danger of being contaminated by the waste from pit latrines. Through the improvement programme, the use of wells and boreholes has gone down. A total of 3 boreholes and 6 wells were noted. There is a high likelihood that the water from the wells or boreholes are contaminated by the waste from the widespread pit latrines which are allocated very close to them. Several individual home owners have water kiosks from where they sell the water to the inhabitants at inflated prices, sometimes as much as Kshs.5 per twenty litres (plates 9 and 10).

Waste Management

In general, the soil wastes are emptied into the pit latrines or the rare water borne toilets. The major problem is that due to intensive usage, the pit latrines normally get full within a very short time and since there are no proper or effective emptying services from the Municipal council, most of the toilets remain very unhealthy. Some have to be closed down and another one dug besides it. Manyatta has no much of the problem of kitchen waste as is normally the case with many informal settlements. Normally the wastes are dumped within the compound where it is finally burnt. The irritating smell emanating from rotting garbage that characterises other informal settlements in Kisumu such as Bandani and Obunga is not much of a problem here.

The main problem of garbage management is found in the market areas where waste is dumped on the roads or by the roadsides or footpaths serving the area. When the waste decomposes, there results a very bad odour. The Municipal council is not efficient at all in collecting garbage from these areas (plate 11).

Road Network

The main access for the whole settlement is from Kibos road and the Kisumu Ring-road, Manyatta A is supplied by a rich network of vehicular road constructed under the second urban project. Manyatta B does not have a well developed road network system and is served mainly by earth and murrum roads (see table below).

Table 4.4: Access To The Plots.

Status of road	Part A (%)	Part B (%)
Tarmac road	76	—
Murram road	10	27
Earth road	—	52
Foot path	14	21
Column total	100	100

Source: Manyatta settlement plot owners survey (1993).

The all weather tarmac road system that was delivered in Manyatta A is at the moment under serious conditions of disrepair with potholes everywhere. In certain parts, the traces of the tarmac are not even visible (plates 8 and 12). Most probably the contractor did not do his work well and there is lack of proper maintenance of the roads.

The lack of proper road network in Manyatta B has minimised vehicular accessibility especially during the rainy season when the roads become water lodged.

Storm water drainage

The storm water drainage system in the whole settlement is very poor. In part A of the settlement, the drainage system which was provided during the implementation of the second urban has already broken down due to lack of proper maintenance. The gutters are filled with soil and waste from households thus blocking the proper flow of storm water (see plate 13). In part B there exists no specific drainage system and the storm water flows in any direction. Since the top soil in this part of the settlement is mainly clay soil, there is frequent water lodging as can be seen from plate 8.

Electricity

Electricity network in Manyatta part A is very good, while in part B it is sporadic. Electric power lines follow the internal road network constructed during the implementation of the second urban project and along the Kisumu Ring-road and

the Kibos road. From these lines feeder transmission wires service subscribers to the Manyatta power network. However, although the network exists, electricity is hardly available in individual plots or dwelling units. Only 38% in part A and 32% in part B have individual electricity connection, the majority of which appear to be located along the Kisumu By - pass and the Kibos road.

Community Facilities

There are limited public health facilities within the settlement and therefore, people depend mainly on the services of the new Nyanza General Hospital, the Municipal council, health services at Lumumba and Mosque residential estates and the private clinics such as Kibos Road Nursing Home and Manyatta Nursing Home and several other small clinics.

Manyatta is served by four primary schools, namely Manyatta and Kosawo Primary Schools in part A and Magadi and Mbeme Primary Schools in part B. Apart from Kosawo primary school, constructed under the second urban project, the rest of the schools are in serious states of disrepair, with mixed type of development ranging from permanent buildings made of concrete and galvanised iron sheets, but lacking doors and windows, to poorly constructed mud and wattle buildings (plates 14-16).

Both schools in part B are in very poor states and are lacking basic facilities such as desks. All the schools apart from Kosawo primary school lack sanitary facilities and have pit latrines which are in very poor state, lacking even doors. Recreational facilities are totally lacking and the only social facilities available are Bars, Hotels (food kiosks) and discotheques. This leaves children with no recreational facilities outside school. Given this situation many people have no contact with their neighbours.

There are numerous shopping facilities, both formal and informal ones. There is one market at the border between Manyatta A and Manyatta B, constructed under the second urban project. The market exhibits a very low level of cleanliness and the stalls are very few, while the goods sold here are expensive. As a result, the market is not popular amongst the residents leading to widespread upspringing of stores (mini-shops) and kiosks within the settlement, along the roads. These shops or

kiosks sell both manufactured products for use at home and farm products such as vegetables. Apart from the stores and kiosks, there is a lot of roadside vending and doorstep selling of goods such as vegetables, charcoal, paraffin groundnut, maize, fish and second hand cloths.

Another informal open air market has developed at the entrance of Manyatta settlement at the Kisumu Ring-road and Kibos road junction (plate 17).

Rent

In spite of the poor condition of most of the houses, the rental charges are generally high. In both parts of the settlement, the rents range from Kshs.150 - 400 per room for the low quality tenements and Kshs.400 - 900 for the more sophisticated units. The average rental level for part B is Kshs. 200 per room while the rental charges are a little bit higher in the part A where it averages to about Kshs. 350 per room. There is high demand for residential units in this settlement and the landlords have taken advantage of this plight of the tenants to demand high rents. However, because of the lack of alternatives, the tenants are still willing to pay.

From the above scenario, it can be concluded that housing condition in Manyatta settlement is quite poor although there was an initiative to improve it.

CHAPTER FIVE

DATA ANALYSIS AND FINDINGS

FACTORS INFLUENCING THE ABILITY TO IMPROVE HOUSES

The most important proposition which support the housing improvement approach is the assumption that the inhabitants are able to influence their respective conditions of housing, when they have security of tenure, freedom to build and supportive infrastructure.

This basic assumption has led to the common thinking that whenever the informal settlements are allowed to form without interference from centrally imposed building specifications, housing regulation and norms, the standard of housing will register a trend of progressive improvement. In order to get the true picture of the situation, it is necessary to comprehend the type of circumstance under which the developers improve their houses in this area.

PART A

Land Tenure Security

Article III Section 3.06 of the project agreement required the Municipality to transfer the plots to the beneficiaries in the forms of freeholds or leaseholds for a minimum of 50 years and that the freeholds or leaseholds be used as guarantees for building loans. The philosophy behind the programme held that only legal title would ensure family security and thus stimulate investment in home construction and improvement. It was thought that the title would give the low income families a sense of belonging to the community and hence a stake in its development.

As per the time the survey was being conducted, land adjudication had already been done in this part of the settlement and the land title deeds which were expected to be ready by 1994 were still being processed. However the assumed relationship between tenure security and housing improvement has little factual basis in Manyatta A experience according to this research. Even in the absence of land title deeds, 86% of the plot owners felt that their ownership was quite secure. One can

attribute this sense of security to the fact that land was previously owned in this settlement under customary land rights. Curiously enough neither the original owners nor the new owners do seem to have been affected by the change from customary holding to the present situation of waiting for title deeds.

Asked about the effect that the current tenure have on their ability to improve their houses, only 7.5% of the plot owners complained of being unsure of what action the government may take next, considering that they were living here during the compulsory land acquisition which affected Migosi area and some of the infill plots within this settlement. Hence they do not want to invest much on their plots only to be forced finally to move out. The rest however stated that the tenure system had nothing to do with their ability to improve.

Infrastructure and Community Facilities

From the view point of the plot owners, the investment in infrastructure offered a spatial context for both construction and commercial activities all of which could finally result into the improvement of the houses. Without the infrastructure, home based activities cannot develop into micro-enterprises.

Vehicular road was found to be a major stimulant of house building and micro-business establishments. 83% of the buildings found along the Kibos road and Kisumu Ring-road were found to have undergone improvement, likewise 68% of those found along the internal transport network of Manyatta A had also undergone the process of improvement. When asked about their feelings towards the available transport network as far as house construction is concerned, 63% of the developers in Manyatta A felt that the road system made the settlement accessible and hence increased the demand for houses in the area thus making it profitable to construct rental units. 28% said that the transport network had nothing to do with the building process while for the rest 9% could not relate the transport system to the improvement of their houses, to them it only helped in transporting goods and nothing else. The proximity to the main roads and internal vehicular accesses in this part of the settlement have allowed the growth of produce market and localised trade, selling assorted basic items along the roads.

The available infrastructure although inadequate are highly appreciated by the plot owners especially the roads and the street lighting. However, the lack of certain facilities such as enough and affordable schools, and health facilities are serious sources of complaints. The fact that the provision of infrastructure need to be comprehensive and to complement one another appears to have been overlooked in the project. The provision of water supplies or drainage system for example, have only a minimum effect on health if no measures are also taken to provide clinical services, improve disposal of human wastes and clearing of the drainage to avoid clogging.

Although the importance of the infrastructure provided in this part of the settlement is well appreciated, some of the facilities are producing negative effects. According to 60% of the plot owners, it is not easy to afford to install most of the services into the building for instance electricity and water because of the expenses involved. To many, through the introduction of some of the infrastructure items whose supply are institutionalised for instance water and the introduction of modern technology, the pattern of territorial or redistributive injustice has further been institutionalised. For example, dug wells and boreholes which used to be important sources of water for the people were filled with gravel during the implementation of the second urban project. Since then the people have to buy water which is expensive. Secondly, before the program services for emptying filled up pit latrines were widely available from the Municipal council. At the time of the survey, this service was hardly available to the residents. The facilities are therefore only useful to the extent that the people can afford to install them to their buildings

Poor drainage maintenance, drainage ditches being turned into garbage pits and unmaintained roads are threatening the local environment by providing breeding ground for pests and disease carriers. The project covenant specified that the municipal council should provide garbage collection and maintenance of infrastructure and services but they do not appear to have honoured it and yet the people themselves do not appear to care much for these facilities.

Within this part of the settlement there are only two primary schools namely Manyatta and Kosawo primary schools. It is only Kosawo primary school which

was constructed during the second urban project that is in good condition of repair and has the basic facilities. Yet the chances offered by this school (the number of pupils it can take) are quite few, only upto a maximum of 600 pupils. The school is also quite expensive for the majority of the residents who can not afford to pay approximately six hundred Kenya shillings per term in different forms. Therefore many of the plot owners have to send their children to Manyatta primary school which is in poor state and lacking facilities or to other schools outside the settlement which are quite far.

Finally the formal market which was constructed under the second urban project is not popular amongst the residents because it has a few number of stalls and the goods sold there are also expensive since those selling there have to pay some charges to the Municipal council.

Building standard and planning regulations

The effects of high building standards required by the building code and the planning regulations has been widely acknowledged in Kenyan housing literature (Saad Yaya et. al., 1980b; Agevi, 1990; Agevi and Ngari, 1990).

The relationship between centrally imposed minimum standards specifications and house improvement however could not be established in this part of the settlement. According to the data from the survey, none of the developers claimed to have been compelled by the building regulations to meet certain requirements when building his house neither did any authority insist that they must follow certain building norms. An interview with the director of Housing Development Department (HDD) of Kisumu Municipality (KMC 1993) also confirmed that the local authority never intervened in the house improvement process by trying to ensure that the people constructed the houses to a given standard although building plans were available in the department for those who wanted to make use of them.

According to the survey only 10% of the developers in part A were found to be aware of the existence of building codes which specify the minimum requirements for a basic housing unit (table 4.5). And even amongst the 10% none of them said

to that he had been obliged to meet these requirements when he was constructing his house.

Further questioning of the plot owners indicated that bureaucratic procedures such as police efforts to ensure that vendors and home based 'jua kali' entrepreneurs are discouraged are rarely witnessed. This shows that such powers have very little interference with peoples efforts to conduct home based economic activities except for businesses like bars and shops where a license has to be obtained.

Table 4.5: Awareness Of The Building By-law Requirements Of A Dwelling Unit

Improvement level	Awareness of		By-law reqts.		Row total	
	Aware		Not aware			
Improved	4	10.5	34	89.5	38	47.5
		57.1		46.6		
		5		42.5		
No improvement	3	12	22	88	25	31.25
		42.9		30.1		
		3.75		27.5		
deteriorated			17	22.25	17	21.25
				23.3		
				21.25		
Column total	7	8.75	73	91.25	80	100

Source: Manyatta settlement plot developers survey (1993).

These findings suggest that regulations are not among the primary factors that impair the efforts of the people to improve their houses in this part of the settlement.

Building materials

One of the major problems in constructing a house in Kenya is to find cheap construction materials with durability, fire resistance and good insulation and thermal qualities. Before the 1980s, the housing policies and strategies pursued led to the adoption of technology and design criteria with highly capital intensive methods of building construction using high proportions of imported materials and

machinery. The reasons for this included vested interests in equipment and modern methods and maintenance of inappropriate building standards, a climate in which these methods are regarded as the norm and a desire.

A survey conducted by Housing Research and Development Unit (HRDU) of the University of Nairobi on the import content in the construction of the Umoja II low cost housing project in Nairobi showed a very high proportion of imported inputs in the form of materials, equipment and fuel and which accounted for at least 60% of the building costs (Syagga and Agevi, 1988).

Despite the considerable amount of work that has been done on the development of building components which use local raw materials and which can be manufactured in small scale labour - intensive methods (such as stabilised soil blocks and fibre concrete roofing tiles), almost no where in the settlement were they used. Out of all the plots surveyed, on 22.5% purely conventional materials had been used. On the remaining 77.5% both local materials (mostly mud and wattle) and conventional materials had been used (table 4.2). As a whole, all the houses had large proportions of conventional building materials, only mud and timber were found to have been obtained locally but the rest and even timber in some cases, were bought from hardware or construction stores.

When the developers were asked what effect this had on their efforts to improve their houses, all of them complained about the ever increasing cost of the materials which combined with high transportation costs made house improvement very costly. Unfortunately, none of the developers had the slightest idea about intermediate construction techniques such as the use of stabilised soil blocks and fibre concrete roofing tiles.

Geology and morphology

As we had noted earlier in this chapter, part A of the settlement has a stable gravel top soil with a rocky underneath. Virtually all the plots were on stable soils which are capable of supporting design loads from shear strength point of view with an adequate margin of safety.

There were however complaints from about 52% of the developers concerning the problems of excavation for purposes of permanent building construction. The prevalent rock outcrops in this part of the settlement makes it very difficult and expensive to dig a deep foundation. However this is still rationalised by the fact that soil is stable. This stability coupled with the availability of infrastructure makes almost all the differences between part A and part B, supports construction of better housing, facilitates the storm water drainage process, but makes expensive the construction of pit latrines. It however contributes significantly to the difference in land values.

Coping with low income

The results of the plot owners survey in this part of the settlement show that the majority of the plot owners fall in the middle income group and only 34% of the plot owners fall in the low income group.

However the relationship between income level and the ability to improve one's house can not be overlooked. Although from all the income categories that we have there are those who have managed to improve their houses and those who have not, the picture becomes different when we consider what percentage from every income group has managed to at least make some improvements on their housing units.

Table 4.6: Income Of The Plot Owners Households In Part A

Income (Y) group	Monthly Y (Ksh)	Owners
Low income	Upto 4,000	27 (34%)
Middle income	4,001-10,000	40 (50%)
Upper income	Above 10,000	13 (16%)
Total		80 (100%)

Source: Manyatta settlement plot owners survey (1993).

In this case study, only 40% of those in the low income group had managed to initiate improvement on their houses as compared to 47.5% among the middle income and 61.5% among the high income groups. One sees therefore, that the percentage of those who have improved, increases as one moves from low income

to high income categories. Be that as it were, then we can say that income level has a direct relationship to improvement.

Table 4.7: Percentage Of Those Who Have Managed To Improve Their Houses According To Income Groups.

Improvement level	Level of Income						Row total	
	Low		Middle		High			
Improved	11	29	19	50	8	21	38	47.5
		40.7		47.5		61.5		
		13.75		23.75		10		
No improvement	10	40	12	48	3	12	25	31.25
		37		30		23		
		12.5		15		3.75		
Deteriorated	6	35.23	9	53	2	11.77	17	21.25
		22.3		22.5		15.5		
		7.5		11.25		15.38		
Column total	27	34	40	50	13	16	80	100

Source: Manyatta settlement plot owners survey (1993).

When poor households have to survive a tight economy and to carve out a living from low income, the coping response is to try to minimise expenditure on all items which may yield delayed benefits such as housing. Coupled with the ever increasing construction costs and the inability to save from meagre income, it is not easy for them to afford house improvement but to accept substandard living quarters and inadequate services. Secondly, the majority of the low income plot owners cannot be able to improve their houses because either their sources of income are unstable or their incomes are not large enough to permit house improvement. This is supported by the fact that the majority of the low income plot owners (96%) derive their incomes from informal economic activities (see table 4.6). Coupled with ever rising household expenditures on items such as food clothing water and fuel, it is not very easy for the low income plot owners to initiate improvement measures on their plots. An alternative is therefore to provide sub-standard housing units for own residence and if possible for rental to earn income.

The question that however arises is why there exists unimproved houses amongst the middle and the high income groups. This question is best answered when one looks at the current users of the dwelling units. Out of the 11 (eleven) unimproved houses provided by the low income earners in this part of the settlement, only 45% are for rental or occupied by both land lord and tenant. However, 92% of the unimproved houses provided by the middle income earners and 100% of unimproved houses provided by the high income earners are for rental purposes.

The tenants to the unimproved houses are generally poor people implying that unimproved houses are provided by the middle and high income developers mostly for the low income tenants. This can be offered as an explanation of why there are unimproved houses owned by the middle and upper income groups.

Income earning and profit expectation

Since early 1970s Kisumu municipality has suffered the problem of lack of adequate housing. The resulting pressure made the land owners to begin constructing single room rental units of mud and wattle on their previously private homesteads or agricultural land in Manyatta settlement. The most significant aspect of this type of low income housing development is its profitability in the form of rent. Several researchers have shown that the return on capital can be recouped within one or two years. It is this profitability that has therefore, transformed the entire provision of low income housing, for instance in Nairobi's Kibera, Korokocho and Mathare settlements from subsistence to purely commercial (Etherton, 1971; Hake, 1977; Temple, 1973; Memon, 1982; Amis, 1983; 1984; 1989; Kobagambe and Moughtin, 1983).

When the 80 plot owners in Manyatta A were interviewed, more than 78% were found to be using their buildings for income earning too (table 4.8). Another indication of the magnitude of income earning using the buildings is the fact that a higher percentage (more than 70%) of the buildings in all categories ranging from those upon which improvement measures have been effected to those that have deteriorated re either purely rented out or owner occupied but also rented out at the same time (table 4.9).

Given that renting was relatively low before the improvement program began, there is no doubt that public investment together with increase in population which have given rise to higher demand for houses have stimulated commercialisation of this settlement, thus providing a new class of landlords with liquid source of capital. As we had noted earlier, in this chapter, 68% (54 in number) of the developers in part A had added more rooms in their plots. Out of this 45 (83%) are for rental (Manyatta settlement developers survey, 1993).

The commercialisation of housing provision is a serious problem in this settlement since it has resulted to the provision of poor housing structures and amenities for the low income tenants who have no other choice. This is supported by the fact that from table 4.9 above, 70% of dwelling units which are purely for rental purposes are either unimproved or have deteriorated. We would like to stress here that 87% of the tenants to the dwelling units whose conditions are either no better or worse than what used to be in the plot by 1978 fall in low income group. It is also not

Table 4.8: Use Of Building To Earn Income

Improvement level	Use of Building				Row total	
	income earning		not for income			
Improved	28	73.7	10	26.3	37	47.5
		44.4		58.8		
		35		12.5		
Not-improved	22	88	3	12	25	31.25
		35		17.65		
		27.5		3.75		
deteriorated	13	76.5	4	23.5	17	21.25
		20.6		17.65		
		16.25		5		
Total	63	78.75	17	21.25	80	(100)

Source: Manyatta settlement plot developers survey (1993).

The commercialisation of housing provision is a serious problem in this settlement since it has resulted to the provision of poor housing structures and amenities for

the low income tenants who have no other choice. This is supported by the fact that from table 4.9 above, 70% of dwelling units which are purely for rental purposes are either unimproved or have deteriorated. We would like to stress here that 87% of the tenants to the dwelling units whose conditions are either no better or worse than what used to be in the plot by 1978 fall in low income group. It is also not unusual to find plot owners keeping filled up pit-latrines or constructing a building and letting it out before providing sanitary facilities just in a hurry to earn rent. The income earning motive therefore has a significant influence on the type of housing provided.

Table 4.9: User Of Building.

Improvement level	User of building						Row total	
	Tenant only		Owner/Tenant		Owner only			
Improved	6	16	21	55.3	11	29	38	47.5
		30		56.8		49		
		7.5		26.25		13.75		
No improvement	9	36	9	36	7	28	25	31.25
		45		24.2		30.4		
		11.25		11.25		8.75		
Deteriorated	5	29	7	42	5	29	17	21.25
		25		19		22		
		6.25		8.75		6.25		
Total	20	25	37	46.25	23	28.75	80	100

Source: Manyatta settlement plot developers survey (1994).

Lifestyle or customs of the people

All communities in Kenya are characterised by a number of values embodied in their lifestyles or customs, which are specific and unique to each particular community. Of course, peoples style of living and attitudes are normally reflected in the houses, neighbourhoods and settlements that they develop for themselves. One can therefore learn much about a community's traditions and its economy from its house designs, the materials used and the way their settlements are planned.

This study however, shows that the lifestyle or customs have had very little influence on improvement of houses in Manyatta A. According to Table 4.10 many buildings in the settlement (approximately 70%) had some traditional building materials components, mostly mud and wattle. However the developers used these materials not because they wanted to conform to their customs but because these were the materials which were available to them and which they could afford. The traces of customary practices was however observed on about 23% of the plots. Here the houses were constructed in accordance with customary spatial and privacy needs, specifically by either providing more rooms for one household or building another house to cater for those who according the customs cannot share the same dwelling unit with other members of the household. Such included the provision of other sleeping rooms for grown up children who should not share the same sleeping room with their parents and constructing another house for grown up male children of marriage age or who are already married and whom the Luo customs specifically does not allow to sleep under the same roof with his parents. The most noteworthy characteristic of these houses is that 85% are owner occupied, meaning that such customary considerations are important only in cases where one is building for himself and not for rental purposes.

This specific practice influenced the ability and intention of these plot owners in that whether they were capable of extending their houses or adding more housing units or not, they had to do it. In such a situation, those who have limited resources resort to constructing many housing units or rooms which meet the spatial requirement but are quite poor instead of constructing units which are of acceptable standard. As a result, about 63% of the plots in which the influence of customary practices were found are not improved. In the rest of the plots, the customs regarding the provision and use of dwelling space had been disregarded. Cases where customs regulating house building activities had to be observed constituted only 1.25% while no developer complained of having had difficulties in making his unit better as a result of customs. To them, customs were not responsible for the state of their buildings, a phenomenon which can be attributed to the fact that Manyatta is today an urban settlement.

Table 4.10: Housing Units Constructed In Accordance With Certain Customary Requirements (As Percentages Of The Total Number Of Houses In The Various Categories Buildings)

Improvement level	Customary requirement observed							Customs responsible for state of hse
	Traditional shape	Traditional materials	Customary spatial and priv. needs	Customary building norms	Serving all Customary needs	Difficulties as a result of customs	Animals kept in house at night	
Improved	—	22 58%	7 18.4%	—	—	—	—	—
Not improved	—	20 80%	9 36%	—	—	—	—	—
Deteriorated	—	14 77%	3 18%	—	—	—	—	—

Source: Manyatta settlement plot developers survey (1993)

Duration of residence (Ownership)

It is always assumed that the longer the households reside in the same settlement, the more likely they are to have their houses improved to better conditions in terms of the available floor space, amenities and the state of repair of the living quarters (Turner, 1968; UN, 1976). The table below provides an account of the distribution of plot developers duration of ownership and their position concerning improvement efforts. The developers were categorised into those who owned the plots even before 1978 and those who moved into the settlement only from 1978 onwards.

This assumption does not seem to fit Manyatta part A where only 37.3% of the original inhabitants have managed to initiate improvement while 65.5% of the new owners have managed even though 50% of the improved houses belong to the original inhabitants. Thus a greater percentage of those who joined the settlement after the beginning of the programme have initiated improvement than those who owned plots here even before the programme began.

Table 4.11: Duration Of Residence (ownership)

Improvement level	Duration of Ownership		Row total
	From prior to 1978	Since/from after 1978	
Improved	19 50 37.2 23.75	19 50 65.5 23.75	38 47.5
Same state	16 64 31.4 20	9 36 31 11.25	25 31.25
Deteriorated	16 94 31.4 20	1 6 3.5 1.25	17 21.25
Total	51 63.75	29 36.25	80 100

Source: Manyatta settlement developers survey (1993).

This is possible because although house improvement is something that has been with the Kenyan local community from time immemorial and is normally done through replacement of one old part of the building with another new one, rebuilding or maintenance, it can only be done when there is means and

convenience. An owner who has been staying in ownership for long is more likely to have the chance to organise himself and finally to initiate incremental improvement, but only if the circumstance are favourable. However, depending on the financial capability of an individual, one owner may be able to initiate improvement even if he has only been in possession for the shortest time, while one who was born in the same settlement might not. That is why we find a significant number of new owners who have managed to improve since a higher percentage of this category of owners (82.8%) fall in the middle and high income groups as compared to only 57% of the original owners (see table 4.12).

Table 4.12: Level Of Income Vis-à-vis Duration Of Ownership.

Income level	Period of residence				Row Total	
	From prior to 1978		From or after 1978			
Low income	22	81.48	5	18.52	27	33.75
		43.14		17.2		
		27.75		6.25		
Middle income	23	57.75	17	42.25	40	50
		45.1		58.6		
		28.75		21.25		
High income	6	46.15	7	53.85	13	16.25
		11.76		24.2		
		7.5		8.75		
Column Total	51	63.75	29	36.25	80	100

Source: Manyatta settlement plot owners survey (1993).

Many of the original land owners in Manyatta A still have their plots and only 36% of the plots are owned by people who moved into the settlement after the beginning of the programme. Because of the infrastructure facilities provided under the second urban project, land prices have gone up from Ksh. 5,000 per hectare by 1978 to Ksh. 110,000 per 0.05 hectare by the time this research was being done. This has made acquisition of plots in this area to be very difficult, hence a lower percentage of new owners. However the density has increased as owners subdivide

their plots to construct rental units. It is therefore no wonder that the majority of those who have managed to acquire plots in this area belong to middle and high income groups since they are the ones who can afford.

Time to be invested in house improvement

Many of the housing improvement programmes are normally based on the assumption that the informal settlement households have many unemployed and underemployed labourers who can make their time available to be effectively employed in the production of their own shelter. This assumption of available time based on the theory of unemployment or underemployment as a major problem in the informal settlements appears to be of limited applicability in our case.

Table 4.13: Number Of Hours Spent By Developers Working In Their Income Generating Activities

Improvement level	Number of hours worked daily				Row total
	Upto 8hrs	Upto 10hrs	Over 10hrs	Indefinite	
Improved	7 18.4	23 60.5	3 8	5 13.2	38 47.5
	63.6	53.5	27.27	33.3	
	8.75	28.75	3.75	6.25	
Same state	1 4	14 56	5 20	5 20	25 21.25
	9.1	32.56	45.45	33.3	
	1.25	17.5	6.25	6.25	
Deteriorated	3 18	6 35	3 18	5 29	17 21.25
	27.27	13.95	27.27	33.3	
	3.75	7.5	3.75	6.25	
Column total	11 13.75	43 53.75	11 13.75	15 18.75	80 100

Source: Manyatta settlement developers survey (1993).

The amount of surplus time and labour available within the households is limited according to our study and the real problem is over-employment. Many of the home owners work long hours throughout the week, for instance eight hours and above (table 4.13). Most of the plot owners, approximately 47% (see table 4.13) earn their income from informal economic activities where income depends on how

much one works. They therefore have to work long hours daily and even some of those who are on permanent employment have to do extra work elsewhere if possible. The people are therefore left with very little or no time to allow the investment of personal labour in the construction or improvement of their houses. Such a situation only has negative effects on the ability of the plot owners to improve in that they have to hire labour for which they must pay using their income. For the low income households it is a great difficulty.

When the developers were asked about the sources of the entire labour used for constructing or improving their houses, all of them said that they had hired skilled labour and only invested their own labour in organising the building process and at times doing minor jobs.

Community participation

The main difference between an informal settlement house improvement programme and conventional housing provision is supposed to be the involvement of the beneficiary community, an element which was totally absent in the conventional housing programmes. Although the majority of the interviewed house owners were aware of the necessity of an improved housing environment (table 4.14), the level of community awareness regarding project related issues was very low. From table 4.15 it is evident that at least 80% of the developers were unaware of what the project required from them in terms of housing construction and infrastructure provision or the fact that the steps being taken in form of land tenure regularisation and infrastructure provision were supposed to encourage them to improve their houses.

The plot owners were not consulted and neither was an adequate information technique applied to educate them about the programme. More than 65% of the developers only learnt of the program when the land for infrastructure and infill plots was being compulsorily acquired or when the infrastructure was being delivered, 21% learnt through the chief's Baraza and only 6% got into contact with the community development officers from the Kisumu Municipal Council (see table 4.16 below).

Table 4.14: Awareness Of The Need For An Improved Housing environment

Improvement level	Awareness				Row total	
	aware		not aware			
Improved	29	76.3	9	23.7	38	47.5
		50		40.9		
		36.25		11.25		
Same state	17	68	8	32	25	31.25
		29.3		36.36		
		21.25		10		
Deteriorated	12	70.6	5	29.4	17	21.25
		20.7		17.24		
		15		6.25		
Column total	58	72.5	22	27.5	80	100

Source: Manyatta settlement developers survey (1993)

Table 4.15: Awareness Of What The Project (Program) Was About

Improvement level	Awareness of Programm				Row total	
	aware		not aware			
Improved	9	23.7	29	76.3	38	47.5
		56.25		45.3		
		11.25		36.25		
Same state	5	25	20	75	25	31.25
		56.25		31.25		
		6.25		25		
Deteriorated	2	11.8	15	88.2	17	21.25
		12.5		23.44		
		2.5		18.75		
Column total	16	20	64	80	80	100

Source: Manyatta settlement developers survey (1993).

The plot owners were not consulted and neither was an adequate information technique applied to educate them about the programme. More than 65% of the developers only learnt of the program when the land for infrastructure and infill plots was being compulsorily acquired or when the infrastructure was being delivered, 21% learnt through the chief's Baraza and only 6% got into contact with the community development officers from the Kisumu Municipal Council (see table 4.16 below).

Table 4.16: Means Of Knowing About The Program

Improv. level	Means of knowing about programm				Row total
	Chief's Baraza	C.D.Os	Infras/comp Acquisition	Newspaper or Radio	
Improved	11 28.9 64.7 13.75	3 7.8 60 3.75	22 57.9 42.3 27.5	2 5.3 33.3 2.5	38 47.5
Same state	4 16 23.5 5	1 4 20 1.25	17 68 32.7 21.25	3 12 50 3.75	25 31.25
Deteriorated	2 11.76 11.76 2.59	1 5.9 20 1.25	13 76.5 25 16.25	1 5.9 16.67 1.25	17 21.25
Column total	17 21.25	5 6.25	52 65	6 7.5	80 100

Source: Manyatta settlement developers survey (1993).

The people were never presented with any program of action or plan to discuss, neither were suggestions solicited from them, meaning that the exchange of information between the developers and the implementors was either inadequate or non-existent. This situation can be held responsible for the misunderstanding on the part the beneficiaries who consider the infrastructure delivered as property of the government and hence keeping them in good condition is not part of their responsibility but of the local authority. Secondly the lack of involvement of the community might also resulted to the misunderstanding and misinterpretation of the

needs of the community as Jobita (1986) puts it, leading to the provision of facilities which were not the immediate requirements of the community.

Had the beneficiaries been involved in the programme, better results could have been achieved as is evidenced by the fact that 56% of those who had adequate information about the programme and 60% of those who got into contact with community development officers have managed to make their houses better than what they used to be. Contrary to this, only 45% of those who had no information and 46% of those who never got into contact with community development officers have managed (see tables 4.16).

Education and occupation

The survey recorded low literacy level amongst the plot owners. It was observed that 10% of the plot owners had no formal education at all and about 48% had attended primary education and even though, one third of this group of plot owners did not complete the primary level programme and hence did not possess any formal certificate of primary education. Only about 42% had attained secondary level education and above (table 4.17). The level of education attained by the plot owners appear to have had a direct effect on the ability of the plot owners to improve their houses since the majority of those with lower education levels (67% of those having primary education and 87% of those who never went to school) have not managed to effect improvement on their housing units. On the other hand only 36% of those having secondary education and 33% of those having post secondary education have failed.

Lower education levels combined with lack of vocational training could be responsible for the engagement of many plot owners in informal economic activities and the widespread insecurity of income, although finding formal employment in the formal sector is not guaranteed even for a university graduate in Kenya today. According to table 4.18, 59% of those who have primary level education and below are engaged in informal economic activities while 79% of those engaged in informal economic activities have either primary level education or below. On the contrary, the majority of those who have secondary level education are engaged in permanent

employment or well established business. This implies that employment opportunities are limited for those who have lower levels of education.

Table 4.17: The Influence Of Level Of Education Over Ability To Improve

Improv level	Level of education								Row total	
	Nil		Primary		Secondary		Post-sec			
Improved	1	2.6	15	39.5	14	36.8	8	21	38	47.5
		12.5		39.5		63.6		66.6		
		1.25		18.75		17.5		10		
Not improved	4	16	13	52	5	20	3	12	25	31.25
		50		34.2		22.7		25		
		5		16.25		6.25		3.75		
Deteriorated	3	17.65	10	58.8	3	17.65	2	11.76	17	21.25
		37.5		26.3		13.6		16.6		
		3.75		12.5		3.75		5		
Column total	8	10	38	47.5	22	27.5	12	15	80	100

Source: Manyatta settlement plot owners survey (1993).

With limited level of education and the subsequent limited opportunities for formal employment, the only alternative the plot owners are left with is the informal sector. Involvement in the informal sector means having to contend with the fact that income is subject to the availability of work, the ability to work or the availability of demand for goods produced or being sold. In such circumstances none availability of work for some time, inability to work due to illness or social problems, or decrease in demand for goods dealt in would lead to loss or lack of income. This therefore means that the access to income is also limited for those with lower levels of education as can be seen from table 4.19 which shows that those with primary level of education and those who never went to school at all constitute the majority (85%) of the low income group. The inaccessibility to employment or insecurity of occupation and income definitely affects the ability to save for house improvement, legibility for or repayment of conventional finances, all of which slow down the pace of improvement thus leading to low housing standards or deterioration of the existing housing units and if the worst comes, to eventual homelessness.

Table 4.18: The Influence Of Education Ever Occupation

Level of Education	Nature Of Employment										Row total	
	Informal business		Perm. employ.		Inform. employ		Formal business		Retired			
Nil	8	100									8	10
		38										
		10										
Primary	11	29	4	10.5	4	10.5	16	42.1	3	7.9	38	47.5
		52		20		50		59.3		75		
		13.75		5		5		20		3.75		
Secondary	2	9	9	40.9	2	9.1	8	36.36	1	4.5	22	27.5
		10		22.5		25		29.6		25		
		2.5		11.25		2.5		10		3.75		
Post-secondary			7	58.33	2	16.16	3	25			12	15
				35		25		11.11				
				8.75		5		3.75				
Column total	21	26.25	20	25	8	10	27	33.75	4	4	80	100

Source: Manyatta settlement plot owners survey (1993).

Table 4.19: Level Of Education And Level Of Income Of Plot Owners

Income Group	Level of Education				Row total					
	Nil	Primary	Secondary	Post-sec.						
Low	6	22.2	17	63	4	14.8	27	33.75		
		75		44.7		18				
		7.5		21.25		5				
Middle	2	5	19	47.5	12	30	7	17.5		
		25		50		55			8.75	
		2.5		23.75		15				
Upper			2	15.4	6	46.2	5	38.5		
				5.3		27			6.25	
				2.5		7.5				
Column Total	8	10	38	7.5	22	27.5	12	15	80	100

Source: Manyatta Settlement Plot Owners Survey (1993).

Gender and marital status

Data from the survey shows that 44% of the houses are owned by women, the rest are owned by men (table 4.20). According to the table, a greater percentage of male owners than female owners have managed to effect improvement on their housing units. This owes itself to the fact that more female owners (73%) as compared to the male owners (35%) are engaged in informal economic activities which as we had seen earlier has an effect on the ability to improve one's house. Secondly, majority of the female owners (57%) fall in the low income category as compared to the male owners (40%).

The above two factors however, can be explained by the low level of education which is prevalent among the female owners. For instance 89% of the female owners either attained only primary level education or none at all. This however is not surprising since formal education for female members of the society was until recently not a priority. Lastly 68% of the female owners are widows as opposed to only 1% of the male owners who are widowers. It is not a common thing to find a

widower in the African society since more often than not, men do remarry when they have lost their wives. However, while women headed households may not constitute a separate category of people, their social and economic context may considerably vary from those of the other households especially if the women has to play the roles of the sole income earner, reproducer and manager of the household. This becomes even more difficult if the woman belongs to the low income group.

As a whole, the female owners appear to be worse off than their male counterparts.

Table 4.20: Gender Of Plot Owners

Improvement level	SEX OF OWNER				Row Total	
	Male		Female			
Improved	23	60.5	15	39.5	38	47.5
		51		42.9		
		28.75		18.15		
Not improved	15	60	10	40	25	31.25
		33.3		28.55		
		18.75		12.5		
Deteriorated	7	41.2	10	58.8	17	21.25
		15.7		28.55		
		8.75		12.55		
Column total	45	56.25	35	43.75	80	100

Source: Manyatta Settlement Plot Owners Survey (1993)

Sources of finance for improvement

Investment housing involves the acquisition of land, construction of dwellings, and the provision of the associated services. To this end the developer requires enough finances or a steady financial source to enable him to commit himself to the long term investment that housing is. Few developers used multiple sources of finance for improving their houses in this part of the settlement. The largest source of finance that contributed to house improvement was household income which constituted 81%. Remittances and gifts from children, family relatives and friends were found to be used in other matters other than investment in house improvement

while loans from financial institutions and money lenders were found to be quite unpopular because their interest rates are high.

Table 4.21: Sources Of Finance For House Improvement

Improv level	SOURCE OF FINANCE								Row total	
	Loan/ Mortgage		Household income		WorldBank Loan		Loan/house hold incom			
Improved	8	21	25	65.8	2	5.2	3	8	38	47.5
		89		38.5		100		75		
		10		31.25		2.5		3.75		
Not improved	1	4	24	96					25	31.25
		11		37		—		—		
		1.25		30						
deteriorated			16	94			1	6	17	21.25
		—		24.5		—		25		
				20				1.25		
Column total	9	11.25	65	81.25	2	2.5	4	5	80	100

Source: Manyatta settlement developers survey (1993).

Secondly, few had attempted to use their property (land) as collateral (security) for mortgage capital (only 1.3% B). However, these few were amongst those who had managed to initiate improvement on their houses (table 4.21). The failure of the people to use their land as security for capital borrowing is a result of the strong sentimental attachment that they have to their land which makes them have fear of losing their land incase of failure to repay the loan. Secondly, many developers are not fully aware of the channels for borrowing finances, or even the available housing finance institutions from which they can borrow money for house improvement.

Even if the people were aware of the existing channels and institutions, those falling in the low income group who therefore require external finance most may not be legible for loans or may not be able to repay it. As part of the second urban

project, a 3600 Kenya shillings building loan was supposed to be made available to the house builders in this settlement supervised by the Housing Development Department. However, only 2.5% of the developers agreed to have received this loan. They are the infill plot owners and also fall in the category of those who have managed to effect improvement in their plots.

The level of improvement is however higher amongst those who have used borrowed finance (77%) than amongst those who have used entirely own finances, i.e. 39%. This shows that it is necessary for the developers to have additional sources of finance or financial assistance if they are to effect improvement. Personal income alone is not enough as a source.

PART B

Land Tenure Security

Security of tenure has been the most contentious element in the lives of informal settlements, and one that has been stressed much by the champions of informal settlement improvement programmes. As was specified in the project covenant, the tenure transfer process has been quite successful in part B of the settlement and by the time the survey was being conducted, the plot owners had received their land title deeds.

The research however established no relationship between land tenure and house improvement in this part of the settlement. Although when one compares part B to part A where the title deeds have not yet been delivered it is evident that more improvement in the condition of houses was registered more plots in part B than in part A, this difference cannot be attributed to the difference in tenure situation. First of all, none of the plot owners stated that his efforts to carry out improvement have been either been discouraged or encouraged by the prevailing tenure situation. None of the plot owners felt that his possession was insecure before the titles were delivered since security of tenure was guaranteed under the previous customary land tenure. Secondly the title deeds had been delivered only one year prior to this research and hence it is doubtful that it could have brought much of a difference

within such a short period of time and especially as far as security of plot ownership is capable of affecting the ability to improve .

The availability of title deeds which is normally considered important in giving the plot owners access to borrowed finance is another fact which could not be proved since as we will see later in this chapter, only 2.5% of the plot owners had used their plots to borrow capital. It is however still early to draw any conclusion about the relationship between the availability of title deeds and the access to mortgage facilities. Much of the changes that have taken place within part B can therefore be attributed to the changing of the settlement from a rural society to an urbanised one which has doubtlessly spurred a desire for home ownership not only for personal residence but also for rental to migrants to Kisumu Municipality who are not committed to building new lives in the town.

Infrastructure and Community Facilities

As we had noted earlier, the availability of infrastructure such as water, electricity, roads and community facilities such as schools, hospitals and market centres is an issue of special importance to human settlements especially low income settlements. The infrastructure and community facilities situation in Manyatta B is quite deplorable.

Apart from the Kibos road on the northern end of the settlement and the Manyatta A internal road network that borders the western ends, there is no properly constructed transport system in part B. Transportation of building materials is for instance a great difficulty and costly. This phenomenon has had a negative on at least 76% of the plot owners by making it expensive to construct a house due to additional expenses that one must incur if he has to transport building materials into the plot. Due to poor transport system, the area is quite inaccessible during the rainy season and coupled with the absence of other facilities like street lighting, the demand for rental units is lower than in part A. This may be the reason why there are more owner occupied units in Part B than in part A (table 4.9 and 4.25)

Many of the buildings on plots which lie along Kibos road and those at the boarder with Manyatta A where the transport network is better (87%) have been improved

while only 54% of the plots located further inside the settlement have been improved. Along Kibos road, crest roads usually leading to schools, churches or other public utility, and along pedestrian circulation, an army of footloose activities such as food vending, stalls, peddling of produce and wares cluster around these landmarks. This is a clear indication that the transport system can foster both the improvement of houses and the growth of small scale home based micro-economic activities.

Unlike Manyatta A, the water lines are few and the mains are not close to every plot. The same is with electricity. Hence individual plot owners have to rely on private initiatives to make arrangements to have water and electricity connected to their plots. Because of the expenses involved, many plots do not have them nearby. According to the survey, 72.5% of the plot owners felt that the cost of bringing the services to the plots is too heavy a burden to them. Many families or households spend significant amounts of time collecting water from kiosks or else they have to pay large amounts to water vendors. They have to travel far to look for health facilities in part A or Migosi area, children have to do with the poor condition primary schools or walk to other settlements. All these difficulties consume time and resources that would probably be used on house improvement.

The available infrastructure in part A although deteriorating in condition at the moment was a source of inspiration to many of the plot owners in part B who had hoped that this part of the settlement may also eventually be provided with such services. At least 52% of the original land owners had hoped that the infrastructure programme would be extended to Part B while the new owners also bought plots here because of the same reason.

Building standards and planning regulations

Once more the relationship between centrally imposed minimum standards specifications and house improvement was not established in part B just as it was not established in part A. No plot owner claimed to have had to build his house to a certain standard required or specified by the building by-law or planning regulations. The director of Housing Development Department (HDD) of Kisumu Municipality (KMC 1993) confirmed this and further argued that during the time

the programme was being launched Manyatta B was still considered as agricultural land and secondly the land was owned privately under customary land tenure hence it was not easy to enforce any building regulations on such lands.

Of course if the Municipal council never intervened in the building process in Manyatta A where they appeared to have had more powers and interest in the name of infrastructure provision, it would probably be expecting too much from it to think that they would enforce regulation in part B.

Table 4.21: Awareness Of The Building By-law Requirements Of A Dwelling Unit

Improvement level	Awareness of By-law reqts.		Row total			
	Aware	Not aware				
Improved	5	10	45	90	50	62.5
		100		60		
		6.25		56.25		
Not improved			18	100	18	22.5
		—		24		
				22.5		
Deteriorated			12	100	12	15
		—		16		
				15		
Column total	5	6.25	75	93.75	80	100

Source: Manyatta settlement plot developers survey (1994).

6% of the plot owners were however found to be aware of the existence of building regulations although none of them had been affected by it (see table 4.21). Other bureaucratic procedures such as police efforts to ensure that vendors and home based 'jua kali' entrepreneurs are discouraged were also not found probably because this part of the settlement is a little bit remote. In any case not so many informal economic activities are found here. The majority of the residents have to penetrate into Manyatta A or to Kondele to carry out their economic activities.

These findings suggest that regulations have had very little effects on efforts of the people to improve.

Building materials

The problem of building materials whether due to lack of appropriate materials or their exorbitant prices is one that has in many cases affected the efforts of the rich and the poor alike to make better housing environments for themselves. In Manyatta B the ever rising costs of building materials was found to be adversely affecting not the home ownership but the attempts to change the quality of buildings.

Majority of the building materials used in the settlement for instance cement, timber, roofing sheet metals, steel and glass, and all plumbing and electrical fixtures were either wholly imported or had import contents. Out of all the plots surveyed, 22.8% had buildings constructed wholly of conventional building materials which have high import contents, the rest except for 1.25% had buildings constructed of both conventional and local materials (the local materials being mud and timber). Ironically even the soil in this part of the settlement is not good for building construction and has to be bought and transported from elsewhere.

Although Kisumu Municipality has a range of renewable local resources such as timber and agricultural fibres on which building construction could be drawn, Manyatta B is however poor on this. The developers have to rely on the few construction stores and small workshops which exist in part A for retailed building materials and locally assembled parts such as windows and doors. This situation is further aggravated by the poor transport system and inadequate road network thus increasing the cost of construction significantly. This kind of problem was appreciated by all the plot owners as a severe limitation to their efforts towards the improvement of their buildings.

Faced with such a situation, it is no surprise to find plot owners providing low quality dwelling units especially for rental. An integration of the appropriate building methods and materials into the construction activities in this settlement would probably be of great benefit to the developers in this area, particularly the

low income plot owners who cannot easily afford the costs involved in obtaining conventional building materials.

Geology and morphology

In any given building site, the geological make up, the terrain and the technicalities involved is very important. As we had noted earlier in this chapter, the Western and Northern parts of Manyatta B have the same characteristics as Manyatta A while the Eastern and the Southern parts, which forms the major part of Manyatta B, are composed of black cotton soil.

The black cotton soil dominated southern and the Eastern parts are not capable of supporting design loads from shear strength point of view with an adequate margin of safety since the ground is not stable to a deepness of one metre.

For purposes of permanent building construction the unstable soil must be deeply excavated to provide a stable ground for foundation laying. The excavation process is costly and time consuming and thus makes house improvement quite difficult. The black cotton soil is also unsuitable for local construction techniques such as use of mud and wattle walling and hence as we had mentioned earlier, soil for construction is in most cases transported from elsewhere to the site.

The third effect which comes as a result of the geological make up of the settlement is the later logging and the fluctuations in the level of ground water table. These cause serious problems during the lifetime of the structures, for instance, excessive settlement due to wetting of clay soil, and the rise or loss of moisture, which causes the cracking of walls, foundations and floors and also makes communication difficult.

Coping with low income

Like in part A the majority of the plot owners in part B fall in the middle income category and only 32.5% fall in what is considered by this research as the low income group (table 4.22).

A casual look at the income category data and the improvement attained by the various income groups projects no significant relationship between the two in that there are those who have managed to bring about some improvement on their buildings and those who have not been able to do so in all the three groups. However when one looks at the percentage of those who have improved in all the income groups separately, it becomes evident that a higher percentage of those in upper income groups (middle and upper) have improved than those in the low income category (table 4.23).

Table 4.22: Income Of The Plot Owners Households.

Income(Y) group	Monthly Y (Ksh)	% of owners
Low income	Upto 4,000	26 (32.5%)
Middle income	4,001-10,000	34 (42.5%)
Upper income	Above 10,000	20 (25%)
Column total		80 (100%)

Source: Manyatta settlement plot owners survey (1993)

Table 4.23: Level Of Improvement By Income Groups

Improvement level	Level of Income						Row total	
	Low		Middle		Upper			
Improved	13	26	23	46	14	28	50	62.5
		50		67.6		70		
		16.25		28.75		17.5		
Not-improved	7	39	8	44.4	3	16.6	18	22.5
		27		23.5		15		
		8.75		10		3.75		
Deteriorated	6	50	3	25	3	25	12	15
		23		8.9		15		
		7.5		3.75		3.75		
Column total	26	32.5	34	42.5	20	25	80	100

Source: Manyatta settlement plot owners survey (1993).

Although 50% of those in the low income category had managed to improve, the percentage is far much higher amongst those in the middle income and those in the upper income groups where we find that 67.6% and 70% respectively have managed to improve. This scenario shows that the inadequacy of income which is normally prevalent among the low income earners, relative to expenditures and the cost of housing and the resources available for the households to spend on a house is a serious drawback to the improvement efforts of the poor. To this group of owners, improvement may only be attainable if they severely distort their overall expenditure patterns by spending much less on other items such as food, clothing, education and health. It is not easy for these people to save from their incomes and without savings, no investment can be made especially on housing which yields delayed returns.

Higher level of income on the other hand enables the household to save, which savings can be invested in house building or improvement. Therefore one can say that higher level of income upgrades the overall quality of housing more rapidly.

The question of why those in the middle and the upper income groups also provide poor houses also arises in this case. However, just as was the case in part A, the majority of the poor or unimproved houses provided by the middle and the upper income groups are mainly for rental. For instance, 56% of the unimproved houses provided by the middle income group and 100% of those provided by the upper income group are for rental as opposed to 42% of those provided by the low income group. And similarly in this case, 93% of the tenants to the unimproved houses are low income earners.

It can therefore be argued that the higher income earners have taken advantage of the plight of the poor to provide inadequate houses so as to reap quick rent. As for the low income plot owners, renting out may just be one possible way of responding to rising poverty.

Income earning and profit expectation

The fervent advocates of informal settlements improvement programmes like Turner appear not to have given due consideration to the fact that the housing

process in these settlements could be transformed easily from a subsistence activity to a commercial one. Unlike the case of Latin American settlements which in a majority of cases originated through invasion, commercialisation is not quite avoidable here since even before the beginning of the programme land was already owned under customary tenure. Although Turners works were important in convincing him and many other policy makers that the poor or the low income households could successfully improve their houses, today the period of free access to urban land is over and non-commercialised processes of land and housing supply are disappearing. Instead the processes are increasingly being commercialised.

As a result of the pressure caused by the lack of adequate housing within Kisumu Municipality, the discovery that housing can be used as a means of earning income had already been made in Manyatta settlement in the early 1970s. This discovery was not to be lost in Manyatta B when finally the improvement programme was launched and part A was quickly being transformed. As we can see from table 4.24 and 4.25, not only are the majority of the housing units from every category on various plots either purely for rental, but also more than 50% of the units in every category are used for income earning.

Table 4.24: Use Of Building To Earn Income

Improvement level	Use of Building		To Earn Income		Row total	
	Income earning		No income earning			
Improved	30	60	20	40	50	62.5
		61.2		64.5		
		37.5		25		
Not-improved	13	72.2	5	27.8	18	22.5
		26.5		16.1		
		16.25		6.25		
Deteriorated	6	50	6	50	12	15
		12.3		19.4		
		7.5		7.5		
Column total	49	61.25	31	38.75	80	100

Source: Manyatta settlement plot developers survey (1994).

Since a study of the settlement in 1976 (Waweru and Associates, 1976) had noted that the use of housing units to earn income was quite low, it goes without saying that the increased population, security of tenure and the availability of infrastructure in the nearby part A have quickly transformed housing from a resource with use value to a commodity with a market value which can be traded for wealth.

Table 4.25: User Of The Housing Unit.

Improvement level	User of Housing Unit			Row total
	Purely rental	Owner/Tenant	Owner only	
Improved	8 16	19 38	23 46	50 62.5
	44.4	73.1	63.9	
	10	23.75	28.75	
Not-improved	5 27.8	6 33.3	7 38.9	18 22.5
	27.8	23.1	19.4	
	6.25	7.5	8.75	
Deteriorated	5 41.7	1 8.3	6 50	12 15
	27.8	3.8	16.7	
	6.25	1.25	7.5	
Column total	18 22.5	26 32.5	36 45	8 100

Source: Manyatta settlement plot developers survey (1994).

As we had seen earlier in this chapter, many of those in the upper income groups have capitalised on this situation and have taken it as an opportunity to provide poor houses for rental to those in the lower income category. To them the provision of rental houses for instance is a means of generating wealth or storing it. Poor households however rent out as a method of repaying the construction cost or supplementing income. Their rationale is not to make profit per se and such rationale is common among the older generation for whom the prospect of rent providing income for one's old age seems to be an important consideration.

Lifestyle or customs of the people

Under normal circumstances, even in the absence of formally enforced building codes and standards, a set of social norms and sanctions regulating the use of housing and facilities usually exist in different customary contexts. These norms and sanctions normally regulate the use of space, the formation of space and the choice of construction materials. A number of traces of customary practices were found in this part of the settlement especially among the original plot owners. Such traces included the practice of homesteading and provision for customary privacy norms even if it meant having a bad house. Although these traces could be seen, evidence from the data shows that the strength of the customary norms is getting eroded.

Practice of polygamy which normally gives rise to certain customary spatial arrangements which may force one to build more houses even if he is not capable of building adequate ones is dying in this settlement and only 21.25% of the plot owners were found to be polygamists. However 59% of the households in polygamy family setups had not managed to improve the condition of their houses as compared to only 32% of those in monogamy family setups. This shows that the practice of polygamy imposes a greater burden on the households since it also demands more housing units and increases the size of the family and extended family responsibilities.

Many of the buildings are constructed using partly some traditional building materials especially mud and wattle (table 4.26). However as it was stated by the plot owners, the use of these materials was not as a result of trying to keep up with the customary norms but because they were the most available and affordable ones.

At least 40% of the housing units were constructed as a result of customary demands which were mainly to meet the spatial and privacy needs of separating married couples from other grown up members of the family, keeping distance between family members of different sexes or as a result of the propensity of the household to subdivide. Even though none of the housing units was found to be serving all the customary needs.

Table 4.26: Housing Units Constructed In Accordance With Certain Customary Requirements (As Percentages Of The Total Number Of Houses In The Various Categories).

Improvement level	Traditional shape	Traditional materials	Customary spatial and priv. needs	Customary building norms	Serving all customary requirements	Difficulties as a result of customs	Animals kept in house at night	customs responsible for state of hse.
Improved	—	35 70%	16 32%	4 8%	—	—	—	—
Not Improved	—	15 83%	10 55%	3 25%	—	—	—	—
Deteriorated	1 8%	11 91%	6 50	1 8%	—	—	—	—

Source: Manyatta settlement plot owners survey (1993).

Out of all the plot owners interviewed, only 10% had observed customary rules of establishing a home when they were building their houses. All the units which had elements of customary norms were occupied by the members of the plot owners household. Ironically all the developers including those who had built their housing units according to certain customs said that the customs were not responsible for the state of their units. All of them could only relate the state of their dwelling units to their financial abilities.

The low level influence of customary norm are due to the fact that the settlement is today within an urban setup where the structures of the family and the household are rapidly changing and the traditional households are intermingling with new forms and demands. This evolution is taking place pretty fast especially with the migration of other groups into the settlement and it tends to make the traditional type of households and values become difficult to maintain or obsolescent.

Duration of Ownership

A basic assumption which is normally made about informal settlements is that housing improvement process here is the result of incremental decisions in the sense that the longer the duration of residence of the household heads in the settlement, the better will be the condition of accommodation. Although Turner does not specify after what period of urban residence this will happen, he goes ahead to propose that a youthful rural migrant with very low income will seek cheap and sub-standard accommodation, while a migrant with a longer period of residence will be better accommodated.

Considering our settlement, Table 4.27 below provides an account of the distribution of the period of ownership of the dwelling units and the state of the units.

The table indicates that approximately 46% of the plot owners owned their plots even before the beginning of the programme. The remaining 54% moved into the settlement after its beginning. However the distribution of the period of ownership and the condition of housing does not favour Turners thinking since the residential seniority is not reflected on the level of improvement. The

houses of the majority of those who are the original residents of this area (approximately 60%) have either remained at elementary level or have deteriorated in condition (table 4.27).

Table 4.27: Duration Of Residence (Ownership)

Improvement level	Duration of Ownership				Row total	
	From prior to 1978		Since or from after 1978			
Improved	15	30	35	70	50	62.5
		40.5		81.4		
		18.75		43.8		
Not-improved	13	72.2	5	27.8	18	22.5
		35.1		11.6		
		16.25		6.25		
Deteriorated	9	75	3	25	12	15
		24.3		7		
		11.25		3.75		
Column total	37	46.25	43	53.75	80	100

Source: Manyatta settlement developers survey (1994).

On the other hand about 81% of the new owners have managed to bring about improvement on the condition of the houses in their plots. The assumptions of Turner and the like therefore seems to be applicable only if the renters are the ones considered as the migrants and only if the length of stay leads to the improvement in the socio-economic status of a household. In such a case a fresh migrant will tend to seek accommodation in the more sub-standard housing while his counterpart who has stayed here for long will tend to move out to a better accommodation after improving his socio-economic status.

The socio-economic situation seems to be an important issue in having better accommodation not only for the renters but for the plot owners as well. From table 4.28 one sees that only about 26% of the new owners belong to the low income group while as much as about 41% of the original owners belong to the low income group. It must therefore be emphasised that, irrespective of the

period of stay, a degree of house improvement can be registered depending on the socio-economic circumstances surrounding the plot owner. Hence an observer should not be surprised to find that new owners have attained higher levels of improvement than the original owners.

Table 4.28: Level Of income Vis-à-vis Duration Of Ownership

Income level	Duration of Ownership				Row total	
	From prior to 1978		Since/from after 1978			
Low income	15	57.7	11	42.3	26	32.5
		40.5		25.6		
		18.75		13.75		
Middle income	14	41.2	20	58.8	32	42.5
		37.8		46.5		
		17.5		25		
High income	8	40	12	60	20	25
		21.66		27.9		
		10		15		
Column total	37	46.25	43	53.75	80	100

Source: Manyatta settlement plot owners survey (1993).

Another point worth noting is the fact that the majority of the plot owners in part B are new owners. This is due partly to the land values which although have gone up, is still much lower than the land values in part A. Land values in this part of the settlement ranges from Ksh. 40,000 per 0.05 hectare in the eastern and southern sections to Ksh. 80,000 per hectare in the northern and western sections. It can also be attributed to the fact that many of the original owners have sold their plots to move to other places or sold just part of their lands to be able to get money for developing their plots.

Time to be invested in improvement

As it can be recalled, the theory of informal settlement improvement was derived from empirical observations of informal settlement housing activities in Latin America and other parts of the world where it was shown that the

inhabitants of these settlements have enough time which can be invested in the improvement of their own houses.

Table 4.29: Number Of Hours Spent By Developers Working In Their Income Generating Activities

Improv't level	Number of Hours worked						Row total	
	Upto 8hrs		Upto 10hrs		Indefinite			
Improved	11	22	36	72	3	6	50	62.5
		64.7		68		30		
		13.75		45		3.75		
Not-improved	5	27.8	9	50	4	22.2	18	22.5
		29.4		17.6		40		
		6.25		11.25		5		
Deteriorated	1	8.3	9	66.7	3	25	12	15
		5.9		17.6		30		
		1.25		11.25		3.75		
Column total	17	21.25	53	66.25	10	12.5	80	100

Source: Manyatta settlement developers survey (1993).

The settlement which is the subject of our study however shows the direct opposite of this. Many of the home owners and the members of their households work long hours throughout the week, for instance eight hours and above (table 4.29) thus leaving them with very limited surplus time and labour to be use in house improvement.

However, since many of these people are not under permanent employment, they normally end up being classified as unemployed simply because their work is not official or registered. For example, 43.25% of the plot developers in both parts of the settlement who are engaged in the informal sector and even the established businessmen and businesswomen normally fall in this category. Even the women have no free time because they may be working full time and even if not full time, they undertake virtually all the domestic and child raring responsibilities at the same time.

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	Upto 8hrs		Upto 10hrs		Indefinite			
Improved	11	22	36	72	3	6	50	62.5
		64.7		68		30		
		13.75		45		3.75		
Not-improved	5	27.8	9	50	4	22.2	18	22.5
		29.4		17.6		40		
		6.25		11.25		5		
Deteriorated	1	8.3	9	66.7	3	25	12	15
		5.9		17.6		30		
		1.25		11.25		3.75		
Column total	17	21.25	53	66.25	10	12.5	80	100

Source: Manyatta settlement developers survey (1993).

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	Upto 8hrs		Upto 10hrs		Indefinite			
Improved	11	22	36	72	3	6	50	62.5
		64.7		68		30		
		13.75		45		3.75		
Not-improved	5	27.8	9	50	4	22.2	18	22.5
		29.4		17.6		40		
		6.25		11.25		5		
Deteriorated	1	8.3	9	66.7	3	25	12	15
		5.9		17.6		30		
		1.25		11.25		3.75		
Column total	17	21.25	53	66.25	10	12.5	80	100

Source: Manyatta settlement developers survey (1993).

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As a result of this situation the developers use more of hired labour than their own labour. All the plot owners interviewed had hired skilled labour in the construction or improvement of their dwelling units and only invested their labour in organising for the building materials and the building process and minor jobs if they can afford to do them after their usual economic activities.

Community participation

Closely linked to time investment is the active participation of the beneficiary communities in the improvement of their houses. Most of the 'success stories' that we read about (Schlyter 1991, Vance 1987, Van der Linden 1987 etc.) concerning improvement programs in the informal settlement involved close engagement of the communities concerned in the program planning, implementation and maintenance.

The path towards the mobilisation of the full and active participation of the community apparently was not taken in this case. The data from the

Table 4.30: Awareness Of The Need For An Improved Housing Environment

Improvement level	Awareness				Row total	
	Aware		Not aware			
Improved	36	72	14	28	50	62.25
		61		66.7		
		45		17.5		
Not-improved	14	77.8	4	22.2	18	22.5
		23.7		19		
		17.5		5		
Deteriorated	9	75	3	25	12	15
		15.3		14.3		
		11.25		3.75		
Column total	59	73.75	21	26.25	80	100

Source: Manyatta settlement developers survey (1993)

survey shows that although the majority of the house owners are aware of the necessity of an improved housing environment (table 4.30), they had very limited if not no knowledge of the aims and the requirements of the programme (table 4.31). Over 85% of the developers were unaware of what the project required from them in terms of housing construction and infrastructure provision or the fact that the steps being taken in form of land tenure regularisation and infrastructure provision were supposed to encourage them to improve their houses.

Many of the plot owners (67.5%) only learnt of the program when the land for infrastructure and infill plots was being compulsorily acquired or when the construction of the infrastructure and community facilities was going on (table 4.32), a move which was initially viewed suspiciously and later accepted as the government doing its duty. The means by which the majority of the plot owners got to know about the programme shows that little efforts were made to consult them, educate them or assist them on technical issues.

Table 4.31: Awareness Of What The Project (Program) Required

Improvement level	Awareness of Programme				Row total	
	Aware		Not ware			
Improved	7	14	43	86	50	62.5
		58.3		63.2		
		8.75		53.75		
Not improved	3	16.7	15	88.3	18	22.5
		25		22.1		
		3.75		18.75		
Deteriorated	2	16.7	10	83.3	12	15
		16.7		14.7		
		2.5		12.5		
Column total	12	15	68	85	80	100

Source: Manyatta settlement developers survey (1993).

There were no efforts to organise community or group building activities and each household had to do it its own way. Further more, the developers in this

part of the settlement were least aware of the fact that there were architectural plan in the HDD which they could use for constructing their houses. Even if they new, it is most unlikely that they could have been able to use them without guidance from the Municipal council.

It is however not easy to tell from our data whether a higher level of improvement could have been achieved in part B if the people had been adequately informed about the programme since only 58% of those who had information about the programme have managed to improve their houses as compared to 63% of those who did not have information. But it is also possible that they could have known about the importance of the land title deeds and the channels open to them for borrowing finance, if they had been adequately informed. They could also have learnt about the importance of community building groups which when successfully organised can make improvement activities a little easier.

Table 4.32: Means Of Knowing About The Program

Improv. level	Means of knowing about Programm				Row total
	Chief's Baraza	C.D.Os	Infras./comp Acquist	Newspaper or Radio	
Improved	7 14 43.75 3.75	—	36 72 66.7 45	7 14 70 8.75	50 62.5
Not improved	5 27.8 31.25 6.25	—	10 55.6 18.5 12.5	3 16.6 30 3.75	18 22.5
deteriorated	4 33 25 5	—	8 66.7 14.8 10	—	12 15
Column Total	16 20	—	54 67.5	10 12.5	80 100

Source: Manyatta settlement developers survey (1993).

Education and occupation

More often than not, it is taken that formal education would generally provide equal opportunities and social equality, factors which are important in enabling people to improve their housing conditions. According to the study, the level of education attained by the developers was generally low and only 33.75% of the plot owners had secondary level education, 53.75% primary education and 12.5% did not attend school at all (table 4.33). When the level of education is compared with the housing conditions, we find that there is a strong relationship since the percentage of those who have initiated improvement on their houses increases as one moves from lower to higher education level. For instance only 10% of the plot owners who had no formal education had managed to improve the conditions of the houses on their plots. On the other hand 58% and 89% of those who had primary and secondary education respectively had managed to do so.

Table 4.33: Level Of Education

Improv. level	LEVEL		OF		EDUC.		Row total	
	Nil		Primary		Secondary			
Improved	1	2	25	50	24	48	50	62.5
		10		58.1		88.9		
		1.25		31.25		30		
Not- improved	4	22.2	11	61.1	3	16.7	18	22.5
		40		25.6		11.1		
		5		13.75		3.75		
Deteriorated	5	41.7	7	58.3			12	15
		50		16.3		—		
		6.25		8.75				
Column total	10	12.5	43	53.75	27	33.75	80	100

Source: Manyatta settlement developers survey (1993).

Although the ability of formal education to provide economic and social opportunities remains contestable in the present day Kenya, the relationship between education, occupation income and the ability to improve one's housing

situation cannot be ignored in this settlement. Majority of those owners who are engaged in informal economic activities (80%) have either primary education or they never attended any formal education programme. On the contrary at least 56% of those on permanent employment and 25% of those engaged in formal businesses attended secondary school education (table 4.34).

This implies that access to permanent employment is largely determined by the level of education. This in turn means that for those who have limited education, the economic opportunities are also limited and hence the only chance open for them is participation in informal economic activities. As had been mentioned earlier in this chapter, informal sector employment means having to contend with insecurity of occupation and consequent variability of income. This can also be seen from table 4.35 which shows that although those engaged in informal economic activities constitute only about 39% of the population of plot owners, they form 69.3% of the low income group or put differently, about 66.6% of them fall in the low income group.

Not only is good formal education necessary for getting access to economic opportunities, but it also widens the scope of understanding of the individual even as far as the need for a good housing environment is concerned. It can also transform the desires of an individual and hence make him struggle to make his housing unit a better place to live in.

It is therefore presumable that it is not controversial to conclude that both education and occupation, being related variables have influence on the quality, quantity and stability of income of the households and hence determines on the type of house they can afford in terms of investing their savings or repaying loans or legibility for loans from conventional housing finance institutions.

Table 4.34: The Level Of Education And Nature Of Employment

Level of Education	Nature of Employment										Row total			
	Informal business		Farming		Permanent employment		Informal employment		Formal business				Retired	
Nil	6	60	1	10	3	30							10	12.5
		42.9		4		75	—	—	—	—	—	—		
		7.5		5		3.75								
Primary	6	14	10	23.3	1	2.3	9	21	15	34.9	2	4.5	43	53.75
		42.9		40		25		69.2		75		50		
		7.5		12.5		1.25		11.25		18.75		2.5		
Secondary	2	7.4	14	51.9			4	14.8	5	18.5	2	7.4	27	33.75
		14.2		56		—		30.8		25		50		
		2.5		17.5				5		6.25		2.5		
Column total	14	17.5	25	31.25	4	5	13	16.25	20	25	4	5	80	100

Source: Manyatta settlement plot owners survey (1993).

Table 4.35: Income And Occupation Of The Plot Owners.

Level of Income	Nature of Employment											Row total		
	Informal business		Permanent employment		Farming		Informal employment		Formal business		Retired			
Low income	10	38.5	4	15.4	2	7.7	8	30.7	1	3.8	1	3.8	26	32.5
		71.4		16		50		61.5		5		25		
		12.5		5		2.5		10		1.25		1.25		
Mid-income	3	8.8	16	47	1	3	5	14.7	8	23.5	1	3	34	42.5
		21.4		64		25		38.5		40		25		
		3.75		20		1.25		6.25		10		1.25		
High income	1	5	5	25	1	5			11	55	2	10	20	25
		7.2		20		25		—		55		50		
		1.25		6.25		1.25				13.75		2.5		
Column total	14	17.5	25	31.25	4	5	13	16.25	20	25	4	5	80	100

Source: Manyatta settlement plot owners survey (1993).

Table 4.36: Level Of Education And Level Of Income Of The
Developers

Income level	Level of Education						Row total	
	NI		Primary		Secondary			
Low	7	27	17	65.4	2	7.6	26	32.5
		70		39.5		7.4		
		8.75		21.25		2.5		
Middle	3	8.8	16	47	15	44.1	34	42.5
		30		37.2		55.6		
		3.75		20		18.75		
Upper			10	50	10	50	20	25
		—		23.3		37		
				12.5		12.5		
Total	10	12.5	43	53.75	27	33.75	80	100

Source: Manyatta settlement developers survey (1993).

Gender and marital status

Whatever the objectives of a housing programme, ultimately it is the question of who is participating and the capability of the participant that will determine the extent to which it will be successful. Considering that houses will definitely be owned either by males or females, desegregation of the owners on the basis of gender, recognising that men and women can be surrounded by different circumstances or can play different roles in a society is therefore necessary.

Data from the survey shows that 37.5% of the plots are owned by women, while the remaining 62.5% are owned by men (table 4.37). Although the number of female owners is far less than that of male owners, the above data indicates that a greater percentage of female owners than that of male owners has managed to improve their housing units.

This phenomenon can be explained partly by the fact that even though there may exist numerous cultural variations and regional differences with regard to the role of women in the society, women as wives and mothers are the primary

space users. Since in most cases they have particular responsibilities for the welfare of households, they are more aware of the need for a better living space than men.

Table 4.37: Gender Of Owner

Improvement level	GENDER OF OWNER				Row total	
	Male		Female			
Improved	29	58	21	42	50	62.5
		58		70		
		36.25		26.25		
Not-improved	10	55.6	8	44.4	18	22.5
		20		26.7		
		12.5		10		
Deteriorated	11	91.6	1	8.4	12	15
		22		3.3		
		13.75		1.25		
Column total	50	62.5	30	37.5	80	100

Source: Manyatta Settlement Developers Survey (1993)

Secondly as opposed to their male counterparts, a lower percentage of the female owners in part B (37%) than the male owners (46%) are engaged in informal economic activities. Contrary to the female owners in part A, the percentage of female owners in part B who attained education level higher than primary school is almost equal to that of the male owners (23% of the females and 24% of the males). Lastly, one of the common problems that normally face female owners, namely the absence of the husband due to death or separation was found to be uncommon in this part of the settlement.

Apart from these, it is not easy to tell why a higher percentage of female owners than male owners have managed to improve since a lower percentage of male owners (31%) than female owners (40%) fall in the lower income group.

Sources of finance for improvement

Financing housing improvement, like that of any durable asset, is facilitated by a system that efficiently mediates funds from surplus economic areas to a deficit unit. Financing house improvement therefore involves long term commitment of funds by households to highly non-liquid form of wealth. This kind of commitment requires a back up from a steady and sufficient sources of finance.

According to the survey, the largest source of finance that contributed to house improvement in this settlement was household income which constituted 90% of the total capital used. Other financial sources were found to be less popular amongst the developers. For example, remittances and gifts from children, family relatives and friends although were occasionally received by the plot owners, were found to be used in other matters other than investment in house improvement.

Table 4.38 Sources Of Finance For House Improvement

Improv level	SOURCE OF FINANCE						Row total	
	Loan/ Mortgage		Household income		Loan/House- Income			
Improved	5	10	44	88	1	2	50	62.5
		71.4		61.1		100		
		6.25		55		1.25		
Not- improved	1	5.6	17	84.4			18	22.5
		14.3		23.6		—		
		1.25		21.25				
Deteriorated	1	8.3	11	81.7			12	15
		14.3		15.3		—		
		1.25		13.75				
Column total	7	8.75	72	90	1	1.25	80	100

Source: Manyatta settlement developers survey (1993).

Very few owners used money borrowed from financial institutions or other money lenders either because the interest rates are high or their incomes are low and insecure such that they either cannot be able to repay the loan or may not

qualify for it. Few had attempted to use their property (land) as collateral (security) for mortgage capital (only 4%). However, these few were amongst those who had managed to initiate improvement on their houses (table 4.38).

The level of improvement is higher amongst those who have used other sources of finance apart from their household incomes (75%) than amongst those who have used entirely own finances, i.e. 61%. The developers in this part did not benefit from the building materials loan that was part of the programme. This shows that it is necessary for the developers to have additional sources of finance or access to mortgage facilities in order to effect improvement. Personal income alone is not enough as a source. However many of those who require this assistance especially the low income earners suffer from insecurity of income which are common to all types of the informal sectors and which affects their access to financial assistance which may require to be repaid.

Lastly the use of land to borrow finances is further hampered by the fact that many of the plot owners have very strong sentimental attachment to their pieces of land and coupled with lack of adequate knowledge about the existing avenues to development capital, they are very reluctant to use their plots to secure funds for fear of loosing them incase the cannot repay the loan.

SUMMARY AND CONCLUSIONS

The following points are worth noting from the forgone discussion of the factors affecting house improvement in the two sections of Manyatta settlement:

Land tenure security

The results of the resaerch show that the status of tenure does not have a significant influence on the ability of the plot owners to improve their houses in both sections of manyatta settlement. The above finding although deviates from the conventional theory and assumptions of improvement programs is also confirmed by the World Banks Project performance Audit Report of 1991.

The above situation which tends to project no relationship between land tenure and housing improvement can be attributed to the fact that the settlement did originate on customary land where ownership was quite secure, customary trust holding being respected by the Kenyan land laws. It was therefore not informal by occupation but by land subdivision and building process just as most of the informal settlements in the urban areas of Kenya. Since the plot owners felt that their ownership was quite secure even before the beginning of the programme, it can be concluded that it is a sense of security that seems to matter rather than the legal tenure security found for instance in freehold or leasehold titles. The lack of relationship should not therefore be used to generalise for all the settlements and the effect of land tenure should not be ignored when dealing with settlements whose origins are basically illegal for instance, through accretion or invasion and where land holding is purely insecure. In such settlements, probably when the status of tenure becomes legalised, the development trajectories of the settlement may take different angles all together. Hence tenure regularisation may probably be the first step to begin with.

Infrastructure and community facilities

The research shows that there is a strong relationship between infrastructure and community facilities. While the availability of infrastructure in part A has encouraged building activities, their absence has caused a lot of inconveniences to the plot owners in part B. The availability of infrastructure especially road network appear to be good stimulants of building and informal economic activities which can lead to the consequent improvement of houses. If the infrastructure that the residents require are provided, the time which they have to spend looking for the infrastructure and the cost which they have to incur when trying to get these services in cases where they are not available will be reduced. The time and money saved can then be invested in either income generating activities or improving their houses.

However, it also emerges that when infrastructure is planned and provided without the participation of the recipients at any level, as was the case in Manyatta settlement, there may result a mismatch between what is provided and the needs of the recipients, their understanding, affordability and user

satisfaction. This consequently leads to lack of care and maintenance as is the case with the roads and drainage system in Manyatta A. Certain services such as waste disposal and open drainage maintenance are of course major issues of public responsibility from a health point of view but can be better managed by the community through systems of technical advice and outreach from the public sector and community based organisations.

Building standards and planning regulations

The study on building by-law has been completed and the last workshop was held in February 1993 to review the final Draft report. However, by the time this work was being done the result had not yet been made public.

The findings suggest that regulations are not among the factors that have determined the housing conditions in this settlement. Once more this should not be taken as a general rule because no regulations were applied here and therefore their effects could not have been seen. Contrarily, the absence of any adaptable standard was observed to encourage the provision and maintenance of unsuitable structures, since the income earning interested developers have nothing to bar them from doing so. Some sort of standard or regulation is therefore necessary for guiding development in the settlements and to prevent developers from providing inadequate rental structures.

One point must however be noted. Legislations whether as urban legislation, health and safety or environmental legislation, commercial or building regulations, are all attempts to regulate the actions of individual or enterprises. Perhaps in theory the approach is correct. But in Kenyan cities, the conventional standards which were conceived during the colonial times with some ideal in mind have become so complex, so rigid and so beyond any possibility of implementation both in relation to local circumstances and the possibilities open to the poor, that they are transgressed daily. Of course, there must be something wrong with a regulation or code if it is broken daily by so many people as they go about their daily activities such as providing shelter for themselves.

On the other hand, the production and metabolic processes of housing are key factors that affect man-shelter-environment relationship. For instance, the process of creating shelter, regrouping, location and access to functions depletes the natural resources. While the metabolic processes such as the supply and consumption of energy in the form of water, food, and heat sends out wastes such as human excreta, waste water and garbage.

The maintenance of the man-shelter-environment relationship at a safe level therefore requires action not only by individuals or groups but also through a form of government that establishes rules and norms of behaviour. These norms or standards can play a key role in maintaining the relationship between man, shelter and the environment, since they provide operational methods of keeping the balance intact. It is therefore necessary that some form of regulation be in existence in order to provide the settlement with a direction of development. The standard should be meant for the welfare of man, seeking to determine to the extent to which shelter provides for his biological, psychological and social needs. Further more they should be affordable, scientifically desirable, socially acceptable and economically viable.

The question of high or inappropriate building standards and planning regulation has been widely researched on in Kenya. Normally the high requirements in relation to what the people can afford is motivated by a real desire to improve living standards, hence the phrase "that is not good for our people" is a refrain commonly heard. However, no matter how laudable the motivation, in a shelter program with standards that are socio-economically inappropriate, very few of the benefits will reach the poor.

Building materials

The problem of scarcity and escalating cost of building materials is one that has been felt by each and every developer in this settlement. Even where the materials are obtained from the local hardwares or construction stores, they are still expensive because they are either fully imported or because the raw materials for their manufacturing are imported. Part B of the settlement even had the situation aggravated by the poor transport system and the type of soil available.

Although a lot of research has been done in Kenya on locally produced materials, none was used in this settlement. There is therefore need for the dissemination of appropriate building materials and technology, and the production of building materials using locally available raw materials in a large scale to reduce the cost of construction. Since many had exploited the resources such as timber, soil and sand which can be found locally, these could have been adopted to the intermediate construction techniques to lower the cost of construction. Unfortunately, none of the developers had the slightest idea about intermediate construction techniques such as the use of stabilised soil blocks and fibre concrete roofing tiles.

Geological makeup of the site

The geological make up of the settlement was found to affect some developers in part A and a majority of the developers in part B every. In part A the effect is felt as a result of the rocky outcrops while in part B it is due to the instability of the soil. These make it expensive for plot owners in part A to excavate foundations while in part B it causes difficulties not only during the construction but also during the lifetime of the building and it means for them extra expenses.

Coping with low income

The income level of the plot owners, the security of the incomes, the accompanying family responsibilities, and the income of the renters are important factors that have been found to affect the ability of the people to improve their houses. Low income situation poses a great constraint to house improvement process because either the developers or the renters have too meagre or unstable incomes to permit them to commit the scarce resources to shelter improvement or high rent payment for an improved shelter unit.

In both parts of the settlement, it is evident that a greater percentage of those who fall in the middle and the upper income groups have managed to improve their houses as compared to those in the low income group. This means that when they are forced to curve out a living from unstable or low income, the coping response of the developers and renters alike is to try to minimise expenditure, for instance by accepting substandard living quarter, inadequate

utilities and services in order to afford, to earn income, or to pay less for rent in the case of renters.

Therefore, we can say that when conditions of poverty exist among the developers and renters, the people are most unlikely to be able to afford major house improvement regardless of the level of tenure security or infrastructure provided. Hence considerable investment in their economic status may be necessary before real investment in house improvement can take place.

Income earning and profit expectations

Significantly noted is the effect of the notion held by plot owners in the settlement concerning the right to use land and its improvement as a means of storing wealth and the need to reap easy profit through construction of many inadequate units. Although the use of buildings as means of earning income varies in the two parts of the settlement, the effect is significant in both. Many of the plot owners are capitalising on the ever increasing demand for housing and sinking incomes to reap profit as much as possible. Since the demand for housing affordable to the majority of the renters far exceeds the supply, it makes the housing market for the low-income urban rental units a sellers' market with the land lords dictating what is available and its price.

As has been said earlier in this chapter, the discovery that landed property could be used to earn money through rental units was not to be lost in Manyatta settlement when finally improvement program was launched. The plot owners or the would be plot owners saw it as a chance for constructing more rental units to tap rent from the many settlers who were moving into the settlement due to the introduced infrastructure in part A and in part B where private ownership and the spill over effects of the infrastructure in A have apparently promoted profit motivated investment in land as a source of income not generally available in the traditional village surroundings.

One can thus say that the owners invaded their own land in the settlement, building whatever form of housing, according to their own plans not so much as a gesture of self-help but sensitised by the opportunity to earn income and without consideration to the welfare of the renters. For instance, the problem of

disposal of human wastes: it is essential that human waste be disposed of hygienically if a healthful environment is to be established. Without hygienic waste disposal, the advantages of clean water, roads and electricity are by and large lost. Technically, a great variety of environmentally sound low-costs solutions to this problem exist such as the use of ventilated pit latrine. But the attitude and aim of the developers can prevent them from being effectively used. It is common to find landlords keeping filled up pit latrines or constructing a building and letting it out in a hurry to tap rent without providing toilet facilities. Thus when the bidding is low, the suppliers provide cheap goods and one way of doing so is to produce a substandard housing unit.

Income earning motive an important limitation to improvement process but in the face of evident compression in the urban wages in the last two decades (Lindauer et, al. 1988), with the result that the Kenyan urban middle class and low income groups have suffered so much; and given that it has not been possible to meet the housing demand under the existing housing production systems, property in informal settlements have become an asset which people seek to acquire and to trade under market conditions.

Customs of the people

Even when housing codes and standards are not formally enforced by any specific public authority, a set of social norms and sanctions normally regulate the use of housing and facilities in all customary contexts. The sources of such norms may remain debatable, yet in many circumstances individuals and households are required to abide by them while arranging and using their respective accommodations.

Some reasonable traces of customary practices in home building were found in the settlement particularly regarding the provision of living space in conformity with customary privacy requirements. These traces were however on more plots in part B than part A, owing to the fact that that home-steading is still prevalent amongst the original inhabitants in part B than in part A. Secondly because there is still some space available for expansion when the plot owners have to provide more space for family members part B and lastly because part A has been more urbanised than part B.

However, when the prevailing housing conditions in both parts of the settlement are taken into account, and if the responses of the plot owners are relied on as sincere, it becomes evident that an explanation of the ability of the informal settlement developers to improve their houses using the concept of customs and lifestyle is an assumption which in practice may distort the realities of the situation in the urban areas.

The layout of many of the houses do not reflect the traditional house forms in the Luo customs in whose midst the settlement has developed. For instance the L, U, or T shaped tenements with single rooms for households is a practice which does not conform to the local customary norms regulating accommodation. In the normal African societies, there is usually the need for privacy which arises from factors such as the position of women in the society, attitude towards sex and the desire to screen off various domestic cores from the sight and hearing of strangers. When single room living quarters accommodate several members of different generations then it is obvious that not even the elementary norms of conjugal life can be practiced. Apart from the living space considerations, which was found in less than half of the total number of plots in both sections and mostly for the owner occupied units, there was no any other strong evidence of customary considerations. It also became apparent that even though one has to construct more dwelling space to cater for the privacy needs, the quality of the space depends entirely on his economic ability and interests.

Both parts of the settlement have a wide variety of residents from different communities with different customs, which practically cannot be easily harmonised to form one culture to be used in building construction. This fact thus brings about the question of whose lifestyle needs to be taken into account and whose customs needs to be transformed if lifestyle and customs were to be part of an improvement process. This question becomes slippery especially when one is constructing rental units because he will not know in advance the lifestyle or customs of the tenant who will occupy the unit. Even if he knows, the unit risks falling functionally obsolete in case that specific tenant finally quits and another with a different lifestyle or customs is to occupy the unit.

Hence we can conclude that the customs of the people have been offered a very limited chance by the prevailing conditions to be able influence peoples efforts to improve their houses such that households have to endure discomfort by deviating from the customary norms. Instead of influencing the provision and use of space, customs are now being influenced by the prevailing socio-economic circumstances.

Duration of ownership

The proposition that the longer the informal settlement developers own or stay in the plots the more likely it is that they will improve their houses was also found not to be applicable in this settlement. A higher percentage of new owners than the original owners had managed to improve the condition of the houses on their plots. This is another area of departure, and it appears that the length of ownership or stay can only be associated with house improvement if it is also tied to the improvement in the socio-economic status of the plot owners.

Time to be invested in house improvement

The assumption of available time based on the theory of unemployment or underemployment as a major problem of the low-income groups is of limited applicability in our case study. The plot owners in both parts of the settlement work long hours in their economic activities such that they are left basically with no time to use in working on their houses. Even the women have no free time because they may be working full time and even if not full time, they undertake virtually all the domestic and child rearing responsibilities at the same time.

Therefore the activities that the people engage in, in order to earn a living take all the available time. Should there be some small amount of time left, it is likely to be more profitably used in the effort to expand the existing occupation or income earning activities than in being directed into the construction of shelter. To illustrate this, a householder whose main occupation is street vending is much more likely to increase the time spent in selling than to use the time in building his own shelter. His opportunity cost as a mason or plumber is obviously higher than it is as a street vendor. He will on the contrary take on some of the contractual and managerial responsibilities such as design and

organisation of the building materials, but contract out much of the labour to others in the community who have the appropriate skills to provide the labour needed for the construction of shelter.

We therefore, conclude pessimistically that time involved in working will impose increasing burdens on the settlements plot developers with an obvious effect on the pace of improvement. It can even limit the possibility of the residents participating collectively in improving their surroundings.

Community participation

If the idea of housing improvement is based on the people's participation and their ability to initiate improvement on their housing units, then designing and implementing the project without consulting them is wrong. Matters of improving one's own housing unit are matters affecting the whole household and hence should not be deliberated on, decided upon and executed wholly without his actual involvement.

There was lack of adequate consultation and participation of the developers at important stages of planning and implementation of the program in both parts of the settlement and this made the program to fail to capture the sensitive local needs and beneficiary sentiments thus resulting to lack of maintenance of infrastructure and reduced user satisfaction.

Although according to the director of Housing Development Department the participation of the people was basically supposed to be in the form of house building, the peoples understanding of participation is quite different from this. It means participation in determining the form of environment they desire, it means their control over which structures have to give way for the installation of infrastructure. It means giving them access to information and know-how which can make such levels of participation more effective, information on how to undertake studies to determine community needs and capabilities in terms of implementation; on available credit systems, on planning and building laws, on what procedures must be followed and on how to maintain available infrastructure. And above this, community participation means also having power to reshape what is produced (the kind of house, the nature of services,

the form of public transport provided etc.). This was actually the case in the Dandora phase I project in Nairobi (Lee Smith and Memon, 1988).

Many problems that have characterised the programme such as lack of cooperation from the side of the residents, owners reselling or reclaiming the infill plots acquired from them and the present trend of lack of maintenance of the infrastructure (KMC, 1993; World Bank, 1991) are results of lack of involvement of the community from the start of the programme. The community development efforts which were applied in Dandora phase I project in Nairobi and which were influential as far as achievement of home ownership is concerned, were not applied in this settlement.

Education and occupation

A higher level of formal education would enable one to have access to stable occupation opportunities and to have a higher level of consciousness of the need for a better living environment. If the occupation is insecure, the income will consequently be insecure and this has a direct influence on the ability to improve. Although in the present day Kenya this may be a debatable issue, experience from both parts of the settlement shows when the education level is low the access to formal or stable occupation is limited, without stable occupation, no stable income can be expected and without stable income no savings can be made to be finally channelled into housing improvement.

Low education levels may also limit the ability of the inhabitants to participate fully in house improvement programs, or their awareness and understanding of the issues regarding improved housing environment.

The had been intended small scale business and industrial support which it was hoped would stimulate investment, create additional jobs and hence cause an increase in household incomes did not reach the people probably because the investment made on it was so low or it was accorded low priority.

However, since the survey relied on what was registered through interviews and since many people did not produce their certificates to proof their level of education, this influence of education should not be taken as absolute.

Elementary level of education provides a great deal of social status amongst illiterates, and since there was no way to control answers, the respondents might have exaggerated their level of literacy.

Secondly, it should also be recognised that when people have some school years behind them, they may relapse into illiteracy due to lack of practice and hence they may not be willing to disclose their exact level of education and instead state a lower level. There could be as well a number of people who attained level of education higher than secondary level in part B. Nevertheless, we relied on the answers given by the respondents as they acknowledged their literacy.

Gender and marital status

Gender and marital status were found to be having effects on the ability of owners to improve only if considered in relation to other socio-economic circumstances. For instance a higher percentage of male owners than that of female owners had improved the condition of their houses in part A than in part B of the settlement, while a higher percentage of the female owners had managed to improve the condition of the houses on their plots in part B than in part A. The reason for this is that most of the female owners in part A have low level education, participate in the informal economic activities and are widows as opposed to their counterparts in part B, while in part B the opposite is the case.

Otherwise considered alone there may be no direct relationship between the ability to improve and the gender of the plot owner since a higher percentage of the male owners had improved in part A and a higher percentage of the female owners had done so in part B.

Source of finance

According to the findings of our study, the majority of the dwelling units are constructed using money saved from the income of the developers. This has been found to be disadvantageous since many of the people do not find it easy to support construction activities through their household incomes. Corresponding with other studies (Silvestre D.A et al., 1992) the lowest 30% of

plot owners do not have the financial means to improve their houses. At the same time, they are not legible for loans from financial institutions since the security of their income is questionable and also because they have inadequate information about how to get access to borrowed capital.

However, where borrowed capital has been used to supplement income, the ability to carry out improvement has been high. In conclusion, it can be observed that household income of the inhabitants alone is not adequate as a source of finance for carrying out improvement. Changes should be effected on the way finances are made available to the households so as to make other financial sources open for the developers in order to boost their efforts. Or they should be helped to explore alternative sources of financing.

Other factors

Other factors such as architecture of the building and age of owner were found to have no effect on the ability of the people to improve their houses in this settlement. However, this should not be generalised for all settlement since a factor such as old age can have a significant role in hindering a person from improving his house, by making him illegible for loans or incapable of working to earn income to invest in house improvement especially without proper pension scheme. Young people may also constitute just users of capital and none contributors, thus making them not to be in a position to improve their housing units. As for the architecture of the building, many researchers have established that most of the buildings in informal settlements are constructed in such a way that they can be improved when and how necessary.

Conclusion

From the analysis it can be concluded that the assumption that when left to their own to develop according to their own preconditions, the informal settlements will prove a solution to themselves is disputable. Informal settlements cannot be regarded as autonomous as to bring improvement to their housing conditions on their own since factors which affect the abilities of the developers in these settlements to improve their houses are mostly externally generated and have

strong relations with the general socio-economic and technical factors which also prevail in other sectors of the economy.

Such factors according to this study include household income, income earning motives, sources of finance, cost and availability of building materials, time to be used in building activities, level of education, availability of infrastructure, geological make up of the site where the settlement is situated, and lack of appropriate development guidelines. All these factors determine the ability of the informal settlement communities to participate in improving their houses. Since the gradual approach to house improvement hinges on the ability to solicit the participation of the people, a precise understanding of these factors is desirable, otherwise community participation cannot be taken for granted.

The factors that we have analysed here may appear a familiar catalogue. But behind this catalogue (these factors) lies the basic mistrust, or perhaps more charitably a usual lack of understanding on the part of policy makers of the needs, aspirations, self interests, abilities and limitations of the housing developers in the informal settlement. Without a proper understanding of these factors and how they affect the developers or the process of house improvement, no greater amount of investment, whether on land tenure regularisation or infrastructure provision, will yield any success.

CHAPTER FIVE

RECOMMENDATIONS

Introduction

We saw in chapter two what house improvement in the informal settlement is all about and in chapter three how the idea caught up with the Kenyan urban settlements. We have further discussed factors that have affected the ability of the residents of Manyatta settlement to improve their houses. This chapter will therefore, concentrate on the possible solutions that can be applied to enhance the ability of the dwelling owners to improve their houses.

Recommendations

Resolving the inadequate housing conditions in the informal settlement will not be an easy task. The problem which was initially institutional is now deeply rooted in selfish interests, prejudices and practices and to overcome it will require a sustained effort. Reforms which are currently reluctantly tolerated may need to be hastened, however, by the changes that are rapidly taking place in the Kenyan cities themselves, producing both stresses and strains in the social fabric and a growing willingness to experiment with new solutions.

Giving specific recommendations for the solution of this problem may not be easy given the situation. However, rather than wait for that time when change will change everything, it is more important to conclude with some recommendations that emerge from our previous discussions.

1. There is no doubt that the deplorable shelter conditions in the informal settlements are related to the economic status of the residents and developers of these areas. Strategies to improve the housing situation in these settlements cannot therefore be formulated outside the economic contexts. People need first and foremost to generate income or increase their earnings to enable them to have access to basic needs, to improve their living conditions in general and their housing in particular. The income also needs to be regular for the people to qualify for loans and mortgages which require that there be proof that the funds plus inherent interest will be realised before any financing for housing

development can be undertaken. Income is normally generated through employment in various occupations, although the type of occupation may vary widely.

Expansion of the economic base in order to generate stable employment and income for the less favoured sectors of the population, through the promotion of support services to small enterprises, popular construction activities and other income generating community activities need to form a major part of an informal settlement housing improvement strategy. It is recognisable that only a small proportion will obtain employment in the public sector or in medium-size and large scale enterprises, sometimes referred to as the 'formal sector'. The majority will always gain employment and income from the so called 'informal sector', 'micro-enterprises' or 'small-scale' businesses.

The promotion of the informal sector activities such as manufacturing, trading and service activities and building materials production within the informal settlement communities can improve the socio-economic situation of the residents while at the same time supporting the improvement of shelter and services. Although the project contract document included this as a component, its impact was quite marginal and neither was its traces visible. This may probably be due to relatively modest level of expenditure that was made on this component as the World Bank's report states (World Bank, 1991).

Should the program have had some direct economic components such as skills training, technical assistance for management, provision of credits for small scale businesses and the production of local appropriate building materials, it is possible that it could have generated more rapid and substantial economic impacts.

This experience shows that there is a need for the housing programmes aimed at the poor to go beyond the simple provision of physical shelter and to address the issues of livelihood and employment. It is beyond any reasonable doubt that the generation of adequate livelihood will in fact increase the affordability levels that constraints most of the poor people.

2. Basic infrastructure and services form a necessary component of an improvement program but this has to be done at appropriate standards and costs which the settlement residents can afford. Necessary mechanisms for the supply of services and collective facilities for the lowest income sectors of the population should be established. Infrastructure policies must go beyond the conventional focus on cost recovery and replicability so as to recognise the motivations and strategies of the families that they seek to serve and to offer them the flexibility needed to capitalise on opportunities as they arise. More importantly, if the provision of infrastructure and services is to be linked to cost recovery, then the active involvement and consent of the communities is required.

Initially the settlement can be provided with only the basic infrastructure which the residents need. If and when the paying capacity of the residents improves and their needs increase, the available infrastructure can be upgraded or more provided. The responsibility for the infrastructure should also be clearly divided between the public authorities and the residents. For instance, the trunk road or major infrastructure should be done by the public or local authority but the day to day maintenance functions such as cleaning open drains, repairing taps, maintaining sanitary facilities and internal access should be done at community level through a system of community based organisations, with technical assistance from the authorities or non-governmental organisations as the communities may need.

Without community participation or consultation, it is unlikely that provision of infrastructure can successfully yield satisfaction, or that costs can easily be recovered or that maintenance can be effectively carried out.

3. Geological factors will affect any settlement located on unsuitable ground. However, to solve this problem may require resettlement of the inhabitants which is costly. Perhaps through proper surface water drainage techniques and elevation of the economic capabilities of the inhabitants the problem can be solved. Another option is for future planning processes to avoid the event of settlements finding their seats in unsuitable grounds. Otherwise, the problem stands to live as long as the settlement remains alive because the shortage of

good land here cannot be solved by the availability of good land in another place.

4. While there can be some scope for taking attitudes and behaviour of the people such as profit expectation and customs into account in the design of an improvement program, considerable effort must be made to change or modify the attitudes before house improvement in the informal settlement can be effected. Commercialisation of housing provision in these settlements can hardly be solved by granting tenure or expenditure of additional capital in the provision of infrastructure. However a system of control and guidance must be devised to prevent the commercialisation of low-income housing through provision of inadequate rental units. This would of course contradict the current policies of liberalisation. However if commercialisation began before liberalisation, then it means that there is a great risk that it can be alarming under liberalisation policies. Controlling the process of commercialisation through provision of inadequate housing structures is not something that can be done easily or quickly nor is it responsive merely to greater expenditure. It is however, of critical importance in any attempt to meet basic housing needs.

Adoption of lifestyle or customs approach to housing provision may not be valid in urban informal settlements. However, where it might be deemed necessary, it has to be done with a lot of caution due to the ethnic plurality predominant in the urban areas and which may not be easily captured when cultural approach is used in isolation. However customs must also be allowed to evolve at their will, for customs are dynamic and come as a result of empirical knowledge of people at different times. It should not be felt that it is only the informal settlement inhabitants who have unchanging customs. The dynamism of customs can today be witnessed in any sector of the urban life. The only issue is an environment which can allow the poor for instance, flexibility to adopt to pressures of cultural changes without a lot of inconveniences.

5. Utilisation of appropriate and affordable building standards and land planning regulations is no less critical. Standards should be revised to reduce the cost of the cheapest legal house or land and to increase the proportion of buildings and land developments which are legal and affordable to the poor. Such a process

may be made difficult due to the fact that the regulations are embedded in a legal system and implemented by professionals who are themselves resistant to change.

This subject has been studied much in Kenya and will not be recapitulated here. It is however, the case that revised national standards have been promulgated but never officially adopted in the local authorities. Once adopted, it will be very important because appropriate building standards can enable the informal settlement low income population to gain access to long term finance unlike at present where housing finance institutions will not lend money for housing which is by official definition 'substandard' regardless of the fact that informally produced housing is also bankable in other aspects. Also in combination with land tenure security, it can enhance the employment opportunities for small scale, indigenous contractors and production and use of local building materials produced by small scale entrepreneurs.

6. Improving housing conditions in the informal settlements cannot be achieved without ensuring an adequate supply of suitable and affordable building materials. In order to increase affordability, supply and employment opportunities, more efforts should be directed at promoting the production and use of local indigenous building materials and appropriate building technologies.

The effectiveness of the production of local indigenous building materials can be seen in the cases of Mihango Women's group in Kayole and Humama Women's group in Komarock (Nairobi) and the local women's group in Busia district where the women have managed to set up small scale building materials production centres, enabling them to generate income and to use it on improving their houses.

The locally manufactured building materials however face competition from conventional materials, which are often exempted from sales and other taxes. They also face prejudice from inappropriate codes and standards and the resistance from consumers who prefer commonly used materials. Low income consumers would rather not try something which they have no confidence in. Lastly the demand for locally produced building materials reacts strongly to quality, quantity and reliability of supply. If the supply of locally produced

materials is haphazard in terms of both quality and quantity, permanent markets will not develop.

For the building materials to be easily available at reasonable prices, encouragement has to be given to building research institutes and their findings communicated to people through mass media. Public buildings such as schools, clinic and experimental residential houses for government functionaries to live in should be constructed using these materials. This will give the people the idea that the product is good for everyone and not only the low income.

The government should stimulate interest in local manufacturers by giving them incentives for example tax rebates, and also making sure that policies against imported substitutes are stable. Efforts should be made to encourage fabrication of small elements at local level and to co-ordinate the efforts of masons, carpenters and others for more fruitful and effective results.

7. Changes should be effected in the way financing is made available to household. To this effect, arrangements should be made which provide greater access for the people to both conventional and non-conventional financing systems which are not framed within formal parameters and standard commercial requirements. Unlike earlier where loans were made only for building materials on the assumption of availability of labour amongst the households, loans should be made available for both materials and labour, leaving the household with the decision as to what amount of their own labour is to be employed in the construction process. This can help since the households have no readily available labour reserves.

Presently, it is almost impossible to obtain loans for any type of housing development. when the loans are available, the interest charged is usually very high. Because of the risks involved, banks do not provide credit for the type of rooming houses that the low income families can afford. It is not very advisable for the banks to lower the interests charged on borrowed capital since everyone may take advantage of that and finally the low income may not benefit. However, a longer and more flexible mortgage period can be worked out with the bank to assist the low income groups. The Government should encourage the banks to make their requirements of collateral more flexible to accept either

the land or the house to be built on them as security for borrowed capital. Banks can also be encouraged to give loans for renovations, extensions and incremental constructions.

8. Certainly for an improvement program, the most viable option is the mobilisation of the participation, support and resources of the inhabitants of the settlements. For this to succeed, the residents of the informal settlements must be treated as responsible clients and partners in development and not simply as welfare recipients of government benefits. There should be facilitation of more effective participation of the informal settlement community, with its skills and resources and joining of these to those of the non-governmental organisations and the state as part of a comprehensive housing improvement program.

The link between the community based organisations, non-governmental organisations and governmental organisations should be strengthened so as to allow the building up of effective structures of collaboration. The peoples access to public management processes in the areas of planning, programming, execution and evaluation should be facilitated. This can be done through suitable training programs and appropriate information tools that will develop and encourage the community's self-sufficiency.

While the need for community participation is generally appreciated, the sharing of responsibility between planners and administrators on one hand and the community on the other hand requires some considerations. A recent paper on community participation points out to 'the intense individualism generated by the survival strategies of low income population' which can prevent or inhibit 'the collective solidarity necessary as the basis for community level organisation'. It also describes how many projects are designed with little understanding of the contradictory demands within households and the community (Moser, 1989).

We have already mentioned some of these contradictions for instance the different needs and priorities of developers and renters from the same settlement. Another is the fact that in many cases community organisations are hardly readily available and in cases where they exist, they may represent the

needs of only some of the inhabitants and hence may be an inadequate representation of the interest of all the inhabitants.

However, this should not discourage either government or aid agencies from close engagement with informal settlement communities. Work carried out with genuine community participation is more likely to be better accepted and there is more likely to be a responsible attitude to maintenance. In any case some of the activities carried out by the community at the moment reflects a sense of community participation. For instance, although the households contract out labour, this has the same aggregated employment effects as is expected in community participation and the efficiency is greater. In addition, since jobs are normally contracted to members of the same community, much of the same sense of community participation is thus generated. For the communities to participate well in the process, all these factors must be understood well. However in the future, it might be a better strategy to involve the communities not only in the implementation of the project, but more importantly from the beginning.

The only most important points that must not be ignored are:

- (i) All the parties have to know and understand the objectives and basic principles of the project and the capabilities and limitations of one another.
- (ii) It should be established from the start what kind and amount of assistance needs to be provided to the community in order to enhance its participation.
- (iii) How the responsibilities are to be shared must be determined for each party right from the start, for instance, it will be important to know which decisions are to be made by each party and which one by all parties together.

This form of participation can be done through large scale community education campaigns at the beginning of the program to disseminate the program's philosophy among the beneficiaries. Formation of community groups and (or) involving the existing ones in every stage of the project at least through the leaders and providing the community groups with technical and financial support which can help organise the building groups and get families started in

construction of better houses. This was actually the case in the Dandora phase I project in Nairobi (Lee Smith and Memon, 1988).

Other means of consultation can be through holding meetings in the local administrations offices and the neighbourhood association. A good example of how public participation can assist in urban development with the right climate is the activities of area committees in Eldoret (Agevi, 1990).

Conclusion

In concluding, it is certainly true that the development of informal settlements in Kenya and the improvement of shelter conditions is dependent upon the interdependence nature of the constraints discussed in this thesis. Programs for improving housing conditions must focus on these factors that dominate the lives of informal settlements. Those relating to the day-to-day relationships, thinking, aims, hardships as well as effort to improve their living conditions. The lives of the settlements are manifested in these factors that prevail in them and form them. These varied and seemingly complex factors themselves form a hierarchy that has to be provided for or tackled in one way or another. Therefore, even before attempting to decide on the materials or the most cost-effective construction system to use, the planners must necessarily be willing to work with the communities in these settlements to determine what is their primary concerns and goals: and to determine how much effort they are willing to undertake in achieving those goals.

Solution to the problem should also be seen in a broader context of firm political commitment by the Government to informal settlements improvement and adoption of policy measure and actions that addresses all the constraints and directly support the efforts of the disadvantaged segments of the citizens to build or improve their houses. The basis of these actions should be the 'enabling approach' that will enhance, harness and mobilise the full potential and resources of all possible actors in the informal shelter production and improvement process. The approach should enable the people to meet their housing requirements based on their own priorities and capacities. When conditions are finally created, whereby those who are able to help themselves can do so, resources can be freed for those who are unable to help themselves.

Suggestions for Further Research

The research has tried to bring in the theoretical framework of house improvement indicators which can adequately describe the abilities and limitations of the people. Comprehensive in-depth analysis of each of these factors is today beyond the competence and resources of this study. Due to this limitation, our prescriptions for solving the problem should be taken as formulatory and will have to require further in-depth research on each factor and how each factor affect the other(s).

Further research also need to be carried out to find out the abilities and limitations of the public or formal private sector in participating in this kind of program. To understand the effect of poverty on house improvement better, it will be important to analyse how poverty is manifested in different terms in the conditions of accommodation. Finally studies should be conducted on how measures to improve housing conditions in the informal settlements transforms the use of the entire housing stock by a growing population with changing incomes, needs, attitudes and desires. Without this knowledge, policies dealing with finance, land and infrastructure may simply generate an inadequate and misdirected volume of construction.

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PENDICES

Appendix 1: Plates

Appendix 2: Questionnaire used for plot owners survey

Appendix 1: Plates

Plate 1. Mixed
type of housing
development
in part A



Plate 2. Mixed
developments
in part B

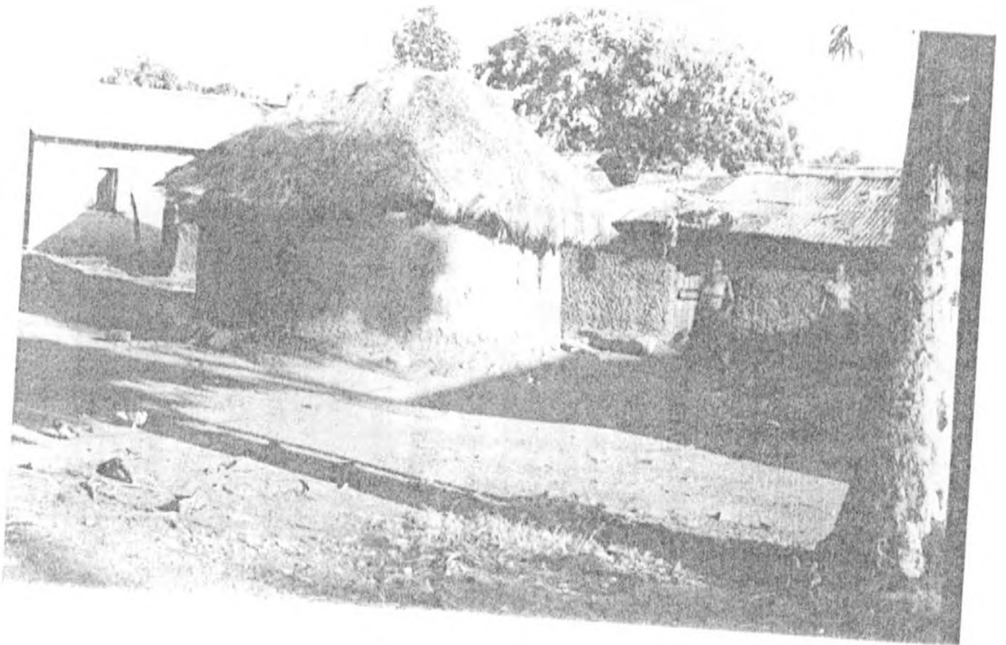


Plate 3. A dilapidated
building with a pit
latrine attached to
it in part A

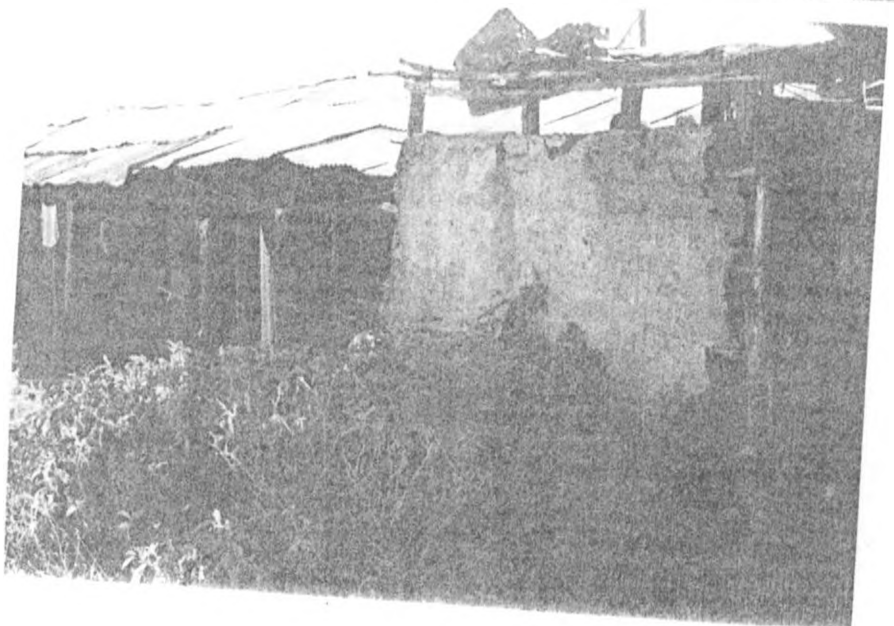


Plate 4 A dilapidated building in part B



Plate 5: A block of flats exhibiting excellent structural soundness in part A

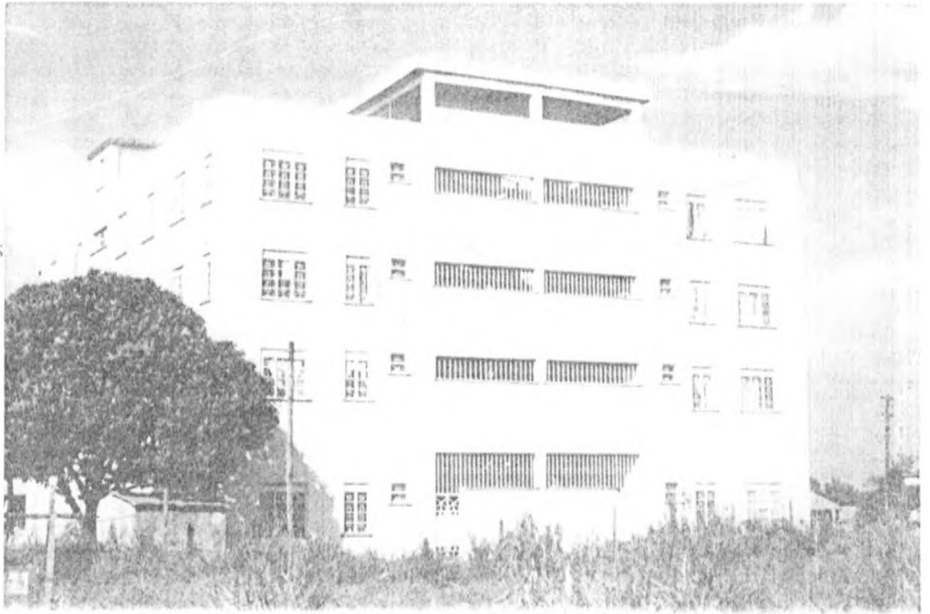


Plate 6 A block of semi-detached bungalows exhibiting high structural soundness in part B



Plate 7 A housing structure requiring extensive improvement at the background and Manvatta primary school's pit latrines in poor condition at the foreground (part A)

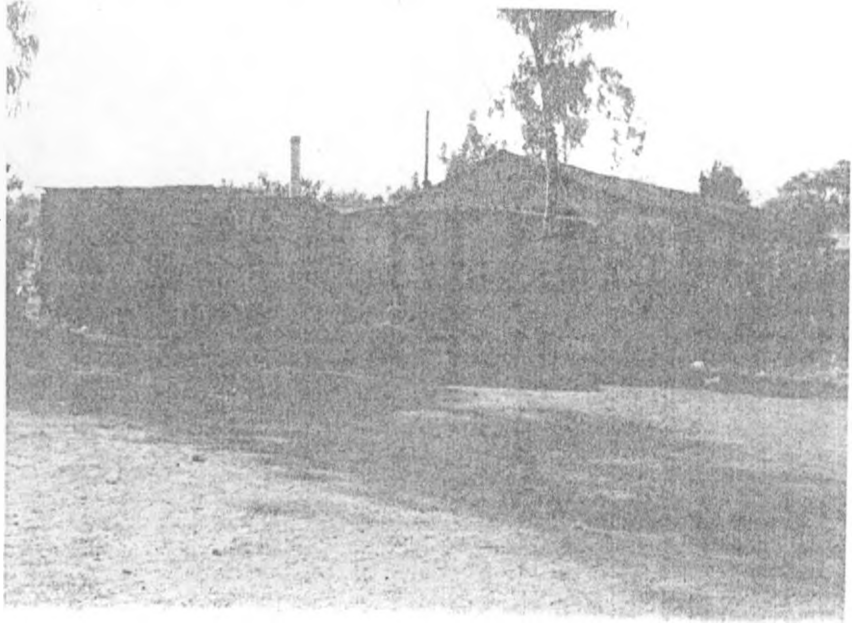


Plate 8: Buildings requiring structural improvement in the background and waterlogged road in the foreground (part B)



Plate 9: Residents queuing for water from a water standpipe in part A



Plate 10 A water well in between dwelling units and next to a pit latrine(part B)

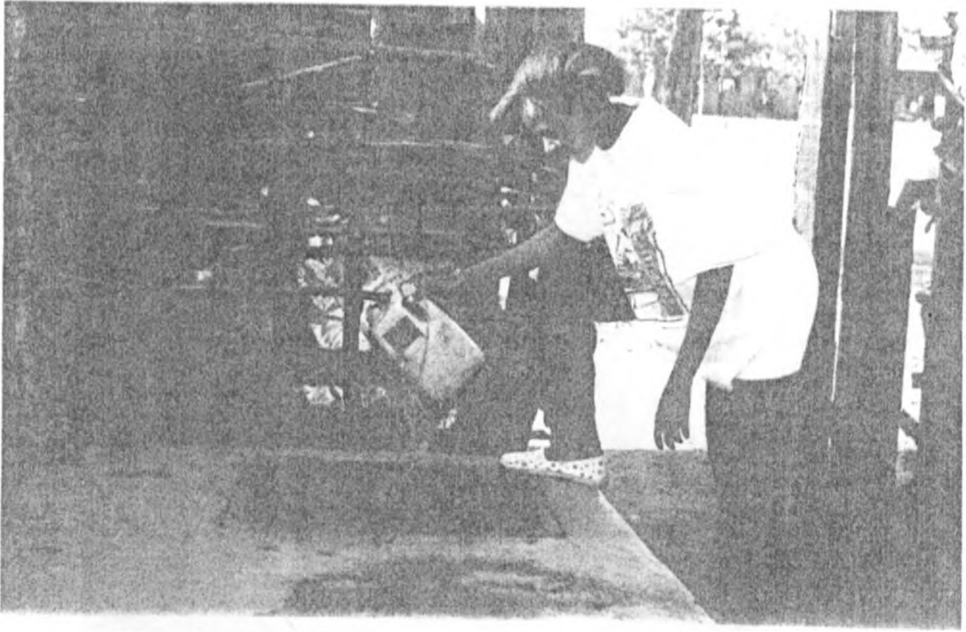


Plate 11: Poor solid waste management at the informal market place in part A



Plate 12 The formally well constructed tarmac roads are under serious conditions of disrepair (part A)



Plate 13: Poorly maintained storm water drainage channel in part A



Plate 14: A well maintained Kosawo primary school in Manyatta A

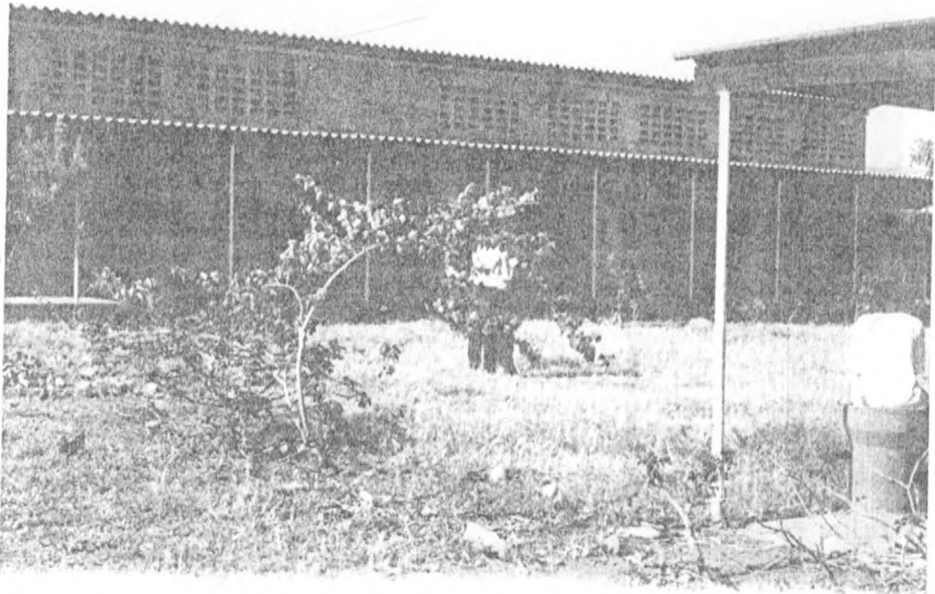


Plate 15: Poorly maintained Mauvatta primary school in part A



Plate 16: Magadi primary in a very poor state(part B)

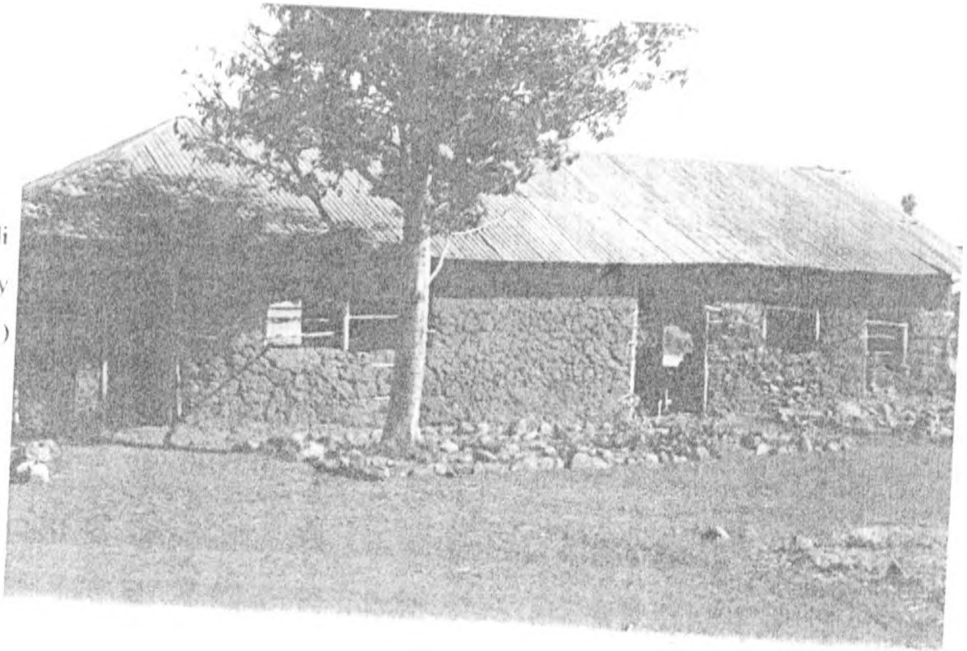
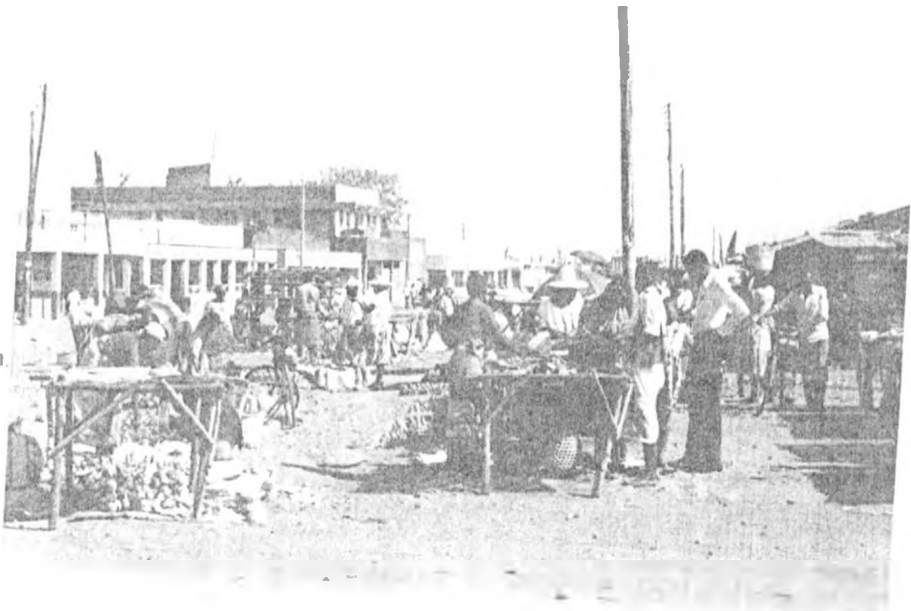


Plate 17 An informal market which has developed at the Kisumu Ring-road and Kibos road junction.



Appendix 2**Questionnaire used for plot owners survey.**

Research Project: Factors affecting house improvement in the informal settlements (A case study of Manyatta Settlement-Kisumu Municipality).

Questionnaire No: _____

Interviewer: _____

Name of Settlement: _____

Part of Settlement: _____

Plot owners Identity (who should be the respondent)

Age: (1) 0-18 (2) 19-39 (3) 40-59 (4) above 59

Sex: (1) Male (2) Female

Marital Status: (1) Married-monogamous (2) Married-polygamous (3) Single
(4) Separated/Divorced (5) Widow (6) Widower

Q1 DEMOGRAPHY AND EDUCATION OF HOUSEHOLD MEMBERS

Serial No.	Kinship	Age	Sex	Marital Status	Level of Education

Options

<u>Kinship</u>	<u>Age</u>	<u>Sex</u>	<u>Marital Status</u>
1. Spouse	1. 0-18	1. Male	1. Married
2. Son	2. 19 - 39	2. Female	2. Single

- | | | |
|--------------------|-------------|-----------------------|
| 3. Daughter | 3. 40 - 59 | 3. Separated/Divorced |
| 4. Other (specify) | 4. above 59 | 4. Widow |
| | | 5. Widower |

Level of Education

- | | | |
|-------------------------|------------------|--------------------|
| 1. No formal education | 2. Primary level | 3. Secondary level |
| 4. Post secondary level | | |

Land ownership and development

2. Did you own this plot before and upto September 1978? (1) Yes
(2) No
3. If no, who owned it? _____
4. Under what kind of tenure did the person who owned the plot by September 1978 own it? (1) Freehold (2) Customary tenure (3) Public lease (4) Private lease (5) Squatter (6) Others (specify).
5. Under what type of tenure do you own the plot currently? (1) Freehold (2) Customary tenure (3) Public lease (4) Private lease (5) Squatter (6) Others (specify).
6. When did you acquire the plot? _____
7. How did you acquire the plot? (1) Purchase (2) Lease (3) Inheritance (4) Others (specify).
8. How many building/housing units were on this plot by September 1978? (Indicate e.g. 2 huts/4 units etc.) _____
9. How many are there at the moment? _____
10. Is this (are these) the original building(s) which was (were) on the plot by September 1978? (1) Yes (2) No.

11. What type of buildings were on this plot by September 1978? (1) Tenement (2) Huts (3) Bungalow (4) Flat (5) Condominiums(6) Single room (7) Others (specify).
12. What type of building(s) exists on the plot currently? (the above options) _____
13. What was the nature of the building(s) which were on the plot by September 1978? (1) Permanent (2) Semi-permanent (3) Temporary.
14. What is the nature of the current building(s)? _____ (use the above options).
15. What was the building(s) used for by September 1978? (1) Residential (2) Commercial (3) Residential cum commercial (4) Others (specify) (5) NI.
16. What are they currently being used for? _____ (use the above options)
17. Who was using the building(s) by September 1978? (1) Owner (2) Tenants (3) Owner and tenant (4) NI:
18. Who is currently using them? (use options above) _____
19. How many rooms were there for use per household by September 1978? _____
20. How many are currently there? _____
21. What was the rent per housing unit by September 1978? _____
22. What are the current rental charges? _____
23. If some rooms or housing units have been added in the plot since September 1978, what are they used for? (1) Rental (2) Owner-occupancy (3) 1 and 2 (4) Others (specify).
24. If the respondent owned or occupied the land by September 1978, was the ownership secure? (1) Yes (2) No (3) NA.

25. Why? _____
26. Did the ownership have any effect on your intention to make your houses better or build better houses? (1) Yes (2) No (3) NI (4) NA.
27. If yes or no, How? _____
28. Do you feel your current ownership is secure? (1) Yes (2) No (3) NI.
29. Why? _____
30. Perhaps you would like to make your building(s) better or build more or better ones than this, does your current ownership has any effect on that? (1) Yes (2) No.
31. How? _____
32. Is the type of ownership responsible for the state of your building(s) in anyway? (1) Yes (2) No.
33. How? _____
34. Do you own any other piece of land elsewhere? (1) Yes (2) No.
35. If yes, where? (1) Within Manyatta (2) In another place within Kisumu Municipality (3) Outside Kisumu Municipality.
36. What kind of development is on it? (1) Rental property (2) Personal residence (3) Agricultural property (4) Others (specify).
37. Where did you use to stay before moving into Manyatta settlement? (1) Manyatta (2) Within the Municipality (3) Outside the Municipality.

Quality of Dwelling

38. What are the materials used in the construction of the following parts of the building?

	By Sept	1978	Current	
Structural element	Principal	Secondary	Principal	Secondary

Wall				
Roof				
Floor				

Options

(1) Stone (2) Concrete (3) Brick (4) Wood/timber (5) Mud blocks (6) Mud and wattle (7) Cardboard (8) GCI (9) Asbestos (10) Clay/cement Tiles (11) Thatch (12) Scrap materials (13) Shingles (14) Cement plaster (15) Cement screed (16) Stabilised earth (17) Wooden Tiles (18) Others (specify).

39. What type of cooking place did the dwelling units have by 1978? (1) Separate kitchen (2) Shared kitchen (3) Verandah (4) Bedroom (5) No fixed place.

40. What type do they have now? _____ (use the above options).

41. What type of toilet facility did the dwelling units have by 1978? (1) Family waterborne (2) Shared waterborne (3) Ventilated pit latrine-family (4) Ventilated pit latrine-shared (5) Ordinary pit latrine (6) Ordinary pit latrine-shared (7) No fixed place.

42. What type of toilet facilities are currently available? (use the above options). _____

43. What was the nature of the toilet structure(s) by 1978? (1) Permanent (2) Semi-permanent (3) Temporary.

44. What is the nature of the current one(s)? (use the above options)

45. What was the condition of the toilet facilities by 1978? (1) good (2) Needed repair (3) Dilapidated (4) Full.

46. What is the condition of the current one(s)? (use the above options)

47. What type of bathrooms were there by 1978? (1) Family bathroom (2) Shared (3) Toilet facilities (4) No fixed place.

48. What type are there currently? (options above) _____

49. What was the nature of the bathrooms by 1978? (options in 43)

50. What is the nature of the current ones? (options in 43)

51. What was the condition of the bathrooms in 1978? (options in 45).

52. What is the condition of the current one(s)? (options in 45)

53. What was the source of water for those living in the plot by 1978? (1) In-dwelling tap (2) Stand pipe in compound (3) Communal tap/kiosk (4) River (5) Well (6) Borehole.

54. What is the current source of water? (options in 53) _____

55. Was there electricity connection to the plot by 1978? (1) Yes (2) No.

56. Is there electricity connection to the plot currently? (1) Yes (2) No.

57. If there is no electricity connection to the plot are there electricity lines along the roads nearby? (1) Yes (2) No.

58. Who provided the electricity lines? _____

59. Was there access road to the plot by 1978? (1) yes (2) No.

60. If yes, what was the status of the access road? (1) Murrum/gravel (2) Tarmac (3) Earth (4) Foot path (5) Others (specify).

61. Is there access road to the plot currently? (1) Yes (2) No.

62. If yes, what is the status of the access road? (use options in 60 above).

63. State of the building components.

Component	By 1978	Currently
Roof		
Wall		
Floor		

Options

(1) Excellent/good (2) Need little repair (3) Need major repairs (4) Dilapidated
 (5) Need to be completed (6) NI

Note: Specify what kind of repair.

64. Where was (were) the current building(s) constructed? _____

65. Have you carried out any modification(s) to your building(s) since it (they) were constructed? (1) Yes (2) No.

66. If yes, what kind of modification? (specify) _____

67. Why did you carry out the modifications? (1) to create more rooms for personal use (2) More rooms for rental (3) To live in a better place (4) Make the house more durable (5) Complete the building process (6) Others (specify).

68. Do you intend to carry-out more modifications or build more houses? (1) Yes (2) No.

69. If yes, why? (use options in 67).

70. Community Facilities

Facilities	Public	Private	Distance from plot
Secondary school			
Primary school			
Nursery school			
Health clinic			
Hospital			
Market			
Church			

Social hall			
Community centre			
Play ground			
Others (specify)			

71. What can you say about the availability or absence of the necessary infrastructure and community facilities? _____

72. Has their availability or absence had any effect on your intentions or ability to make your house better? (1) Yes (2) No.

73. How? _____

74. Do they in any way contribute to the current state of your buildings? (1) Yes (2) No.

75. How? _____

76. What method do you use for disposing garbage (1) Burning (2) Dumping (3) MCK collects.

77. If dumping, state where. _____

78. If MCK collects, state how often. _____

Customs/lifestyle

79. Which community do you come from? _____

80. What is the traditional shape of a dwelling unit according to your customs?

81. Are there any specific or special spatial forms that a dwelling unit should take according to your customs? (1) Yes (2) No.

82. If yes, specify. _____

83. Does your unit(s) conform to all or any of these?

How? _____

Why? _____

84. What are the traditionally used building materials in your community?

85. Were any of them used in constructing your building(s)? _____

86. Why? _____

87. Are there customs in your community which regulate the use of a dwelling space amongst members of the same household but: (a) of different ages
 _____ (b) of different sexes

88. Did you construct your dwelling units to comply with them?(1) Yes (2) No.

How? _____

Why? _____

89. Are there times in your customs when a person is compelled to build or restricted from building or improving his house? (name them)

90. Was any of the dwelling units on your plot constructed or improved as a result of the above mentioned reasons? _____

91. Name the regulation (customary) which have to be observed when one wants to construct or improve his house in your community.

92. Did your observe any of them? (1) Yes (2) No. If yes, which one? _____

93. Are there some customary functions in which you normally participate? (name them) _____

94. If yes, do you participate regularly, how often? _____

95. Are they expensive or time consuming? (1) Yes (2) No.

96. What contribution has a house to a person's status in your community?

97. Has that caused you to have the type of housing units that exists in your plot at the moment? _____

98. What responsibilities do you have in: (a) Your nuclear Family _____
 (b) Extended Family _____
 (c) Community _____

99. Do you find it easy to meet these responsibilities? _____

100. Have they had any influence on your ability or intentions to build or improve your houses? (1) Yes (2) No.

101. If yes, in what way? _____

102. Whose responsibility according to your customs is it to provide shelter for the family? _____

103. Did that have any effect on your ability or intention to build or improve your buildings? (1) Yes (2) No. How? _____

104. Do you or any other resident in your plot practice any form of agriculture on the plot? (1) Yes (2) No. Specify: (1) Animals (2) Plants.

105. If animals are kept, where are they kept at night? _____

106. Is that normal according to your customs? _____

If not, why are they kept there? _____

107. What are the traditional sources of cooking fuel in your community? (1) Firewood (2) Charcoal (3) Cowdung (4) Paraffin (5) Electricity (6) Others (specify).

108. Are any of them used in your plot currently? (1) Yes (2) No. Which one? _____

Why? _____

109. In general, is any of the issues that you would consider customary which we have discussed above or any other which we have not mentioned affect your efforts to build or improve your buildings? (name them) _____

110. Is any of them responsible for the current state of your buildings? (1) Yes
(2) No

111. If yes, which one and how? _____

Employment and income

112. What is your main income generating occupation? _____

113. How many hours do you normally work at your income generating occupation each day? (1) 6 hrs (2) 6-8 hrs (3) 8-10 hrs (4) Over 10 hrs.

114. How long have you been working in your current employment?

115. How many times did you change your place of work during the last one year? _____ Why? _____

116. How often do you receive your salary/wages? (1) Daily (2) Weekly (3) Monthly (4) Others (specify).

117. How much is your monthly income? _____

118. How much was your income in Kshs. last month? _____

119. Do other members of your household contribute money to regular expenses in the household? (1) Yes (2) No.

120. If yes, how much is contributed each month by these other family members? _____

121. Besides your main income generating activity, do you have any other business or work elsewhere? (1) Yes (2) No.

122. If yes, specify. _____

123. How much money do you receive from this other activity monthly?

124. Do you receive money monthly from any of the following sources (specify how much). (a)remittances and allowances from children and relatives _____ b) rental units _____ c) charity _____ d) others _____

125. Expenditure pattern.

Area of Expenditure	Average monthly Expenditure	Last months Expenditure
Food		
House rent		
Transport		
Education and skill		
Health/Treatment		
Fuel		
Water/Electricity		
Clothes/shoes		
Remittances & allowances to dependants living elsewhere		
Household items		
Religious/community activities		
Recreation		
Repayment of loans		
Savings		
Others (specify)		

126. What was the source of finance used for the construction and/or improvement of your house(s)? (1) Personal income/saving (2) Savings and credit association (3) Finance company (4) Mortgage (5) Loans from World Bank through MCK-HDD (6) Remittance from children or relatives (7) Sale of plot (8) Others (specify).

127. How much did other members of your household contribute for the building or improvement of your house(s)? _____

128. Did those members who do not live with you give you money to help you build or improve your house? (1) Yes (2) No
If yes, how much? _____

129. Have you ever attempted getting money from a financial institution? (1) Yes (2) No.

130. Did you get the money? (1) Yes (2) No. If yes, how much? _____
If no, why? _____

131. Have you ever attempted using your plot as a security to secure development funds? (1) Yes (2) No. Why? _____

132. If yes, what was the result? _____
Why? _____

Community participation and development assistance

133. Were you aware of the governments intention to improve the housing conditions in this settlement? (1) Yes (2) No.

134. When did you become aware? _____

135. How did you become aware? (1) Through chief's baraza (2) Through CDOs (3) Through Newspaper/radio (4) Through compulsory acquisition (5) Through provision of infrastructure (6) Others (specify).

136. Did you come into contact with the CDOs during the design or implementation of the project? (1) Yes (2) No.

137. Did you receive any official information from HDD about the programme? (1) Yes (2) No. If yes, what was it about? _____

138. Were you consulted by HDD on any matter concerning the programme?

139. Were you aware that technical and building materials assistance could be obtained from HDD? (1) Yes (2) No If yes, how did you become aware?

140. In building your house(s) did you; 1. follow the council's building plans 2. make modifications to the council's plans 3. make your own building plans 4. use the material loans from HDD.

141. Did you go to the council's building supervisor or technical staff for building assistance or advice? (1) Yes (2) No.

142. If yes in 141, specify what types of technical problems you asked about.

143. How many times did the council's building staff and CDOs visit your plot while building was going on? _____

144. Are you a member of: (1) a building group (2) a housing co-operative (3) 1 and 2 (4) others (specify) (5) none.

145. How many hours did you work on your building each day/week when it was being constructed? _____

146. Did you personally prepare any of the building materials or components yourself? (1) Yes (2) No. If yes, which ones? _____

147. Did your friend or relatives help you to build your house? (1) Yes (2) No.

148. If yes, on average how many hours per week did these persons help you?

149. Did you employ any fundis? (1) Yes (2) No.

150. Did you employ some other persons? (1) Yes (2) No.

151. Did the fundis or other persons that you employed live in this settlement? (1) Yes (2) No (3)NI.

152. Has your marital status or gender had any influence on the much you can do to build or improve your buildings? (1) Yes (2) No. If yes, how?

153. Do you feel advantaged or disadvantaged as far as house building and improvement is concerned because of your gender or marital status? (1) Yes (2) No. If yes, How? _____

Building materials, architecture and regulations

154. Why did you decide to use the kind of building materials used on your building? _____

155. Where did you obtain the materials from? (1) Warehouse in town (2) Construction stores in the settlement (3) Construction stores in another part of the settlement (4) Manufacturers within the settlement (5) From the plot.

156. Were they readily available for you? (1) Yes (2) No.

157. Were the building materials cheap or affordable? (1) Yes (2) No.

158. Did you have to transport the building materials? (1) Yes (2) No.

159. Why did you choose this building design? _____

160. Would you find it easy to extend or modify? (1) Yes (2) No. Why?

161. Are you aware that there exists regulations governing the minimum standards for a dwelling unit? (1) Yes (2) No.

162. Did you follow these when building or improving your building? (1) Yes (2) No. Why? _____

163. Were you under any obligation to build your house according to a particular standard? (1) Yes (2) No. If yes, who compelled you? _____

164. Are these obligations responsible for the current state of your building(s)? (1) Yes (2) No.

Physical conditions

165. Terrain characteristics of the site (1) Flat (2) Gently sloping (3) Steeply sloping.

166. Geological make up of the site (1) Black cotton soil (2) Red volcanic soil (3) Gravel (4) Rocky soil (5) Sandy soil.

167. Did you experience any difficulty in constructing your building(s) due to the nature of the ground? (1) Yes (2) No. If yes, what difficulties?

168. Do you experience any maintenance problems as a result of the nature of the soil? (1) Yes (2) No. If yes, what problems? _____

169. Have these factors in 167 and 168 influenced the current condition of your buildings? (1) Yes (2) No. If yes, how? _____

General

170. Do you think more housing like this (these) one (s) of yours should be built in this settlement? (1) Yes (2) No. If yes, why? _____

171. If you were to receive assistance for improvement of the condition of your buildings, what would you like to have? (Give in order of preference).

(1) _____ (2) _____

(3) _____ (4) _____

(5) _____ (6) _____

172. In general, what were the problems that you encountered when you were constructing or modifying your buildings? (Give in order of preference).

1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____