

SUBSIDISED SHELTER FOR KENYA'S URBAN POOR  
CASE STUDY OF DANDORA SITE AND SERVICE SCHEME

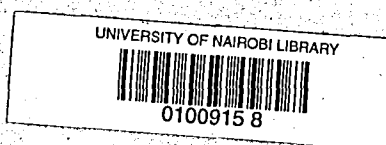
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A thesis submitted in partial fulfilment  
for the degree of Master of Arts in  
Housing Administration in the  
Department of Land Development  
At the Univeristy of Nairobi


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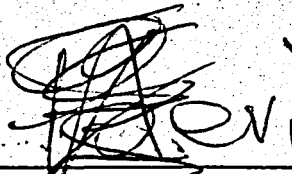
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This thesis has been submitted for  
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DEDICATION

This study is dedicated to  
my late father, MR. BERNARD K. KARIRAH  
and late brother MR. EDDY K. KARIRAH  
who would have been very proud of my progress. /

## ABSTRACT

The housing market process is a slow and inefficient method of increasing the national housing stock, and in providing shelter for all income groups. For this reason Governments and other actors in urban housing have designed methods of intervention in the operations of the urban housing markets, so as to accelerate and control their performance. This is necessary due to the fact that there is a relatively large housing shortage in urban areas in Kenya. Subsidising housing is one of the approaches used to interfere with the housing market so as to lower the rent and, or the price of houses.

There are various subsidy programs in existence in Kenya. The principal ones are through public rental schemes, employer housing, owner occupier housing, staff mortgage schemes of banking and financial institution employees, and other financial institution programs as in housing bonds. The programs above are seen to mainly benefit the high and middle income groups. The subsidised housing programs meant for low income groups are found to be mainly in squatter upgrading and site and service schemes. It is the general view of the government of Kenya and international aid bodies that housing subsidies should be discontinued

or at least be minimised.

The aim of this study was to examine the existing subsidy programs in Kenya so as to find out to what extent housing subsidies address the problem of housing shortage most felt by the urban poor. The study will be able to show whether the above view of eliminating or minimising subsidies should be encouraged, whether there are measures which can be undertaken to improve the delivery and administration of existing subsidy programs for all income groups and to find if it is only the low income groups who should continue to be subsidised. It is apparent from the various subsidy programs studied that most of the programs benefit the high and middle income groups. Even in these, discrimination exists in the distribution and in the amounts of the subsidies. In any country, it is the low income who need assistance if they are to live in conventional housing. However, in Kenya, only a few programs benefit a small percentage of them. Most of the programs meant for the urban poor (same as low income groups earning Ksh. 0-2,000 per month) seem to benefit the middle and high income groups as well. If subsidised shelter is to benefit the urban poor, it should be delivered in such a way so as to reach them without benefitting the other income groups since it is the low income groups who need assistance if they are to live in

conventional housing. The subsidy should be fairly distributed and given in the right amounts.

There are two parts to this study. The first part comprises the introductory chapters generally covering the introductory formalities which include among others, the study objectives, research methodology, and related literature. This part reviews subsidy programs in both developed and developing countries to find out the various subsidy forms, administration of the subsidy and to what extent the subsidy benefits the target groups. The second part consists of chapter three which examines subsidy programs in Kenya, chapter four in which data collected from the field survey is analysed and finally chapter five, which deals with the summary of conclusions and recommendations. The conclusions are based on the findings of the subsidy programs in Kenya and field survey. It is evident that housing subsidies for the low income groups should not be done away with. They should instead, be administered and delivered in such a way that they will benefit the majority of the urban poor. If the subsidising authorities are to do away with subsidies, they should do so to the subsidies for the high and middle income groups who even without the subsidy can afford conventional housing.



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## CHAPTER ONE

### INTRODUCTION

#### Introduction to the problem

Housing not only provides shelter for a family but also serves as a centre of its total environment, a focus of economic activity, a symbol of achievement and social acceptance and as an element of growth and income distribution. It fulfils a social need and satisfies criteria for remunerative urban investment<sup>1</sup>.

When housing is considered as a form of shelter, it is as basic to man as food and clothing. It is because housing is a basic need that the Government of Kenya has in the recent past appeared to be paying a lot of attention to the question of housing and in particular to how Kenya can put up enough houses to meet her needs. According to the Ministry of Works, Housing and Physical Planning report on housing, over 247,000 new housing units will be needed for 1988 alone. Of these, 56,000 are earmarked for urban areas. According to this report, only two-thirds of the urban housing needs have been met creating a shortfall of about 20,000 units a year, leading to overcrowding and the spread of shanty towns<sup>2</sup>.

Housing shortage and the predominantly unsatisfactory housing conditions in urban areas, therefore, manifests itself when the rate of house construction does not keep up with the rapid population growth rate. The population growth in Kenya has been 3.7% per year and it is expected that the population will increase from 19.4 million in 1984 to 34.8 million by the year 2000. The overall growth rate of urban population has been 7.9% in recent years compared to a national rate of just under 4%. By 1979, 15% of the population lived in urban areas, but by the year 2000, 25-30% of Kenyans will be expected to be urban dwellers<sup>3</sup>.

The above figures show that there is an increasing need and demand for housing. The urban housing situation in Kenya is as illustrated by the Nairobi case below. The combination of population growth, urbanization and household formation trends in Table 1.1 indicate that about 70,440 new households will be formed in the present plan period<sup>4</sup>.

TABLE 1.1 POPULATION AND HOUSEHOLD FORMATION  
IN NAIROBI (1983-2000)

Nairobi	1983	1988	1990	2000
Population ('000)	987.20	1,230.30	1,343.14	1,988.60
Average household size	3.45	3.45	3.45	3.45
No. of households ('000)	286.14	356.14	389.39	576.41
New households ('000)	-	70.44	32.81	187.02

Source: Urban Housing Survey, 1983.

(Extract from Table 3.3 pg. 22).

If the 70,440 new households are compared to the planned 8,750 units for Nairobi in the same plan period, the magnitude of Nairobi's prospective housing problems becomes starkly apparent. Most of the population will have no alternative but to live in unauthorized and substandard housing.

About 30% of Nairobi's population live in substandard housing which include slum and squatter settlements such as Baba Dogo, Korogocho, Mathare Valley and others<sup>5</sup>. If bold steps are not taken to provide shelter for the low income groups the mushrooming of the slum and squatter settlements is bound to continue. Furthermore, the low income groups form a large proportion of the urban population. The low income groups in this study are considered to be those in the income ranges of Kshs. 0-2,000 per month which forms about 69.17% of the urban households<sup>6</sup>.

Since the low income households form a large part of the urban population, they are the ones to be catered for if the urban housing problem is to be solved. It is this group which is also discriminated against. They are poor and hence have no proper security to pledge so that they can get loans at affordable terms from the private financiers or semi-public institutions. Most financial institutions give loans according to one's income. The majority of

the low income groups fall under the informal sector. It is therefore difficult to qualify their incomes which are usually unpredictable and fluctuating. This is why very often the low income workers comprising of the "informal sector" have been considered as an impediment to economic development or at best, a marginal element of society<sup>7</sup>. The low income groups comprise 69.17% of the urban population. Therefore they are a central element of the society. It is this group who should be considered if the urban housing problem is to be minimized.

The 1979-83 Development Plan<sup>8</sup> clearly states this problem - that the urban housing problem is compounded by the lack of adequate purchasing power among a large section of the urban population. This plan further states that those who migrate to urban areas have no immediate prospects for employment and lack the basic incomes needed to purchase essential goods and services. Only about 30% of the then existing 440,000 urban households in that period had sufficient income to afford minimum cost conventional housing.

The urban housing problem is further aggravated by the scarcity and high prices of land, the rapid increase in building costs, high costs of building materials and of borrowing money to build or buy a house. These are further complicated by an antiquated building code that never quite took into account the people's ability to finance houses of rather high standards<sup>9</sup>. This was recognised by the Government as shown by the 1984-88 Development Plan<sup>10</sup>, that among

the main specific housing policies and objectives in this plan period, is to formulate and adopt realistic and performance oriented building standards especially in the area of low-cost housing.

The problem of housing in urban areas especially felt by the low income groups has resulted in the government undertaking certain measures so as to intervene with the operations of the housing market in order to increase housing stock to that group of the population which is not adequately catered for by the housing market. One of the policy tools which has been used in both developed and developing countries for provision of housing especially to low income households unable to afford conventional housing in the market are housing subsidies<sup>11</sup>.

#### Housing subsidies

Housing subsidies can be defined as a means of intervention in the housing market for the purpose of expanding either the effective demand or effective supply (or both) of housing. A subsidy is therefore, any method of production or distribution of housing in which the Government or any other authority participates in giving material, financial aid, and or technical assistance to individuals in order to ensure that they receive housing at a price or rent they can afford. This rent

or price is usually lower than the actual market price/rent of housing. In certain cases, the price/rent may appear to be the same as that in the market but there could be concealed (hidden) subsidies, for example in technical assistance.

The concept of a subsidy covers those measures or instruments carried out in order to fulfill the aims and goals of housing policy through encouraging housing production, renewal of housing stock and, or redistribution of the housing consumption among different population groups. Housing subsidies may be directly or indirectly delivered. This makes the concept of subsidies quite broad. It covers not only those measures and instruments which are part of public budgets, but also those which are not necessarily direct payments by the government but which nevertheless influence housing costs or production (such as a tax relief subsidy system)<sup>12</sup>.

The need for subsidies may arise from the social welfare viewpoint when a large proportion of households cannot afford to pay the high economic rents charged for decent housing. Economic rents are high because of the high costs of construction, resulting from inflationary pressures on building materials, wages of building labour and other factors. In Nairobi, rents increase every year. In December 1982, low income groups paid average rents of about Kshs. 315, by

1985 December, the rents had risen to Kshs. 426 per month<sup>13</sup>.

It has therefore become imperative for the government to share the burden of rents either by building houses to let at lower rents as in local authority housing or by giving subsidies to fill the gap between the "rent charged" (economic rent) and the paying capacity (social rent). The economic rent is the rent charged in the market in order to repay the capital invested (loan taken) over a specified period of time with reasonable interest. The social rent being less than the economic rent, by the amount of the subsidy<sup>14</sup>.

On economic grounds, subsidies are necessary where there are inefficiencies which may be severe enough such as the inability of producers and consumers to bring about an optimal allocation of resources. This may be due to the price and supply rigidities caused by regulations and abuse of the market mechanism. In such cases, government intervention can make some persons better off by use of subsidies<sup>15</sup>.

Housing tends to take a low priority in consumer budget allocation. If individuals' economic requirements were listed, housing will often be found to take a place after a job, clothing, food and other consumer goods. People imagine that once they have a job they can earn enough money to buy, build or rent a house. Very few people think of housing after acquiring a job. Thus housing falls under the category of a "merit good" which people should be consuming more of, but very little of it is in fact consumed. Consumption of more housing increases the welfare of society, but the society tends to defer this kind of consumption in favour of other goods. Consequently most governments encourage housing consumption so that it's people can benefit from more of the commodity that they consume less of in absence of government intervention. This is the rationale for most housing subsidies; where in order to induce people to spend on housing the government or any other authority subsidizes individual efforts with material and financial help to make it less strenuous for individuals to construct, finance, rent or acquire housing for their personal use than they do in absence of government subsidy<sup>16</sup>.



Subsidising housing may result in the redistribution of income. Subsidies for housing will compete with subsidies for education, health and other socio-economic sections. The economic significance of housing, its importance in urban spatial form and the fact that it is a basic good make it a prime candidate in many instances for consideration for subsidies. One of the primary objectives of a housing subsidy is to help the "poor" obtain improved housing.

Most housing subsidies, especially those meant for low income groups, unfortunately do not reach them. Little thought appears to be given to their form, magnitude and distribution, among different classes of households, or their impacts on either the behaviour of beneficiaries (example, impacts on housing consumption, investments or choice of tenure) or the viability of the subsidy generating institutions. The efforts undertaken to subsidise low income groups are confounded by the difference between the estimated housing need calculated at relatively high standards and the effective demand based on the individuals ability and willingness to pay for housing services. Thus the subsidies are often deep subsidies (large amounts), reaching only a small percentage of the target group when the target groups are the low income<sup>17</sup>.

Low income housing subsidies: site and service  
and squatter upgrading schemes

Subsidies for low income households are mainly delivered through squatter upgrading and site and service schemes in most developing countries and especially in Kenya. The amounts of subsidies to this group are relatively low if compared to those of high and middle income groups. This is due to the high and middle income groups receiving subsidies through various forms such as employer housing, owner occupier, tax relief on mortgage interest, housing bonds and other forms. These subsidies benefit a large number of the high and middle income groups than those for low income groups which in any case reach only a small group of the low income households.

In addition, in certain cases the middle and high income groups benefit from projects meant for the low income groups. An example, is the Umoja I inner-core housing units in Nairobi which were meant for low income groups with an average of upto Kshs.3,000 a month earning ceiling (the definition of low income groups in this study is Ksh.0-2000 per month). These plots were reportedly confirmed to have been irregularly allocated to prominent people including some senior civil servants; definitely not the target group<sup>18</sup>.

Due to this the City Commission appointed officials to compile a report showing the allocation of these units<sup>19</sup>.

Bloomberg and Abrams as early as 1964 recommended the use of site and service programs to alleviate the housing shortage for the urban low income groups. The site and service projects in Kenya were in the 1970's meant to ease the housing problem of the low income workers within the income ranges of Kshs. 300-1200 per month. This amount has increased in recent projects. For example in Mathare North the incomes are in the range of Ksh. 400 - 1000 per month. In the Development Plan 1984-1988, site and service projects are defined as:

those projects in which residential plots or land are provided with basic services like water, sanitation, roads surface drainage, street lighting and allocated to eligible applicants so that they can gradually develop the house with permanent materials over a period of time using self help efforts. Material loans and technical assistance are offered to plot allottees<sup>20</sup>.

These projects are meant to create economic benefits for potential participants by either lowering the effective market price of shelter and services or relaxing market restrictions or both. Ironically site and service projects in Kenya have not only benefitted the low income groups, but also the middle and high income groups.

The Housing Research and Development Unit field survey<sup>21</sup> revealed that the intended target groups are not benefitting from the site and service projects. A significant fact which emerged is that the majority of the beneficiaries have such low incomes that they simply cannot afford the cost of houses even with the stipulated minimum standards. Furthermore, Senga et al<sup>22</sup> in the survey of Dandora Phase I made an economic analysis of housing in terms of household affordability and found out that about half of the occupied plots were occupied by others, not the original intended allottees. The reason advanced for this being that the initial allottees experienced financial stress. Hence they were compelled to sell their plots.

The housing policies are not appropriately formulated and implemented to cope with the ever accumulating urban housing problems. Insistence on very high standards and technologies coupled with a high rate of inflation has rendered most of the housing projects meant for low income groups high cost. The standards set in the 1974-78 Development Plan were too high and unrealistic. The two-roomed conventional housing is not within the reach of the majority of the urban population.

The problem which results from high standards for low income housing programs is also evident in the Senegal site and service project 1972. The timely execution of the project was hindered among others by the design standards. The standards initially adopted by the government were too high to be realized by the designated project agencies/or the majority of the low income target families<sup>23</sup>.

Over optimism in design standards and the resultant inability of the poor to afford to be in the project has an inevitable corollary - that benefits will tend to accrue to higher income households that can afford the higher standards. "Leakage" of benefits to middle income households in some site and service projects which are subsidised results in the subsidy benefitting those who least need it.

The fact that subsidised shelter for the urban poor reaches only a small proportion of the target group calls for a careful evaluation of the effectiveness of specific housing subsidy forms. However, this may prove difficult as housing programs in certain cases as Umoja are mixtures of several different "pure forms" of subsidies. In addition, the impact of each subsidy program is influenced more by the way in which it is administered than by the amounts of subsidies involved.

Squatter upgrading is another strategy meant to ease the low income housing problems. In the development plan 1984-88 squatter upgrading is said to involve:

The preparation of physical layout plans, regularization of physical layout plans and land tenure by issuing of titles and the provision of basic services to encourage beneficiaries to improve their housing structures and the environment through self-help efforts. Assistance will be offered through the material loans, technical assistance, provision of water points and toilet blocks<sup>24</sup>.

Although Nairobi has the largest squatter settlement, the upgrading exercise is subordinated to site and service schemes. Only 200 units in Kawangware had been proposed for upgrading<sup>25</sup>. If subsidies are delivered to the squatters, a leakage of benefit to other income groups will be minimal as is in site and service schemes. In practice, the choice of the form of the subsidy may be critical to its effectiveness. If it is squatter upgrading, so that the owners of the substandard units are the one's to receive the subsidy, this will differ in its effectiveness to the site and service projects. The issue of effectiveness is important given that the resources available to public authorities are invariably limited.

It is the low income groups in the urban areas who need assistance. As it is generally agreed that just as the poor urban families are often unable to obtain adequate food and clothing, so they are unable to obtain adequate shelter unless they are given some form of subsidy. The subsidies that exist for the high and middle income groups are more beneficial to them than those given to the low income groups. An effective housing subsidy program should benefit the target group in such a way that there is little if any leakage of benefits to the untargeted groups.

#### The significance of the study

It is in the interest of furthering an understanding and appreciation of the role of housing subsidies especially in provision of housing for low income groups that this study has been undertaken. This is necessary due to the continuing urban housing problems especially for the low income groups. The government of Kenya's view on subsidies in housing as laid out in Sessional Paper No.1 of 1986 advocates a move away from subsidised housing. This is required so that returns on public investment can be maximised

Therefore, the government agencies are to be urged to charge market prices for the services and facilities they provide. This is to apply especially to the sale

and rental of housing and housing plots, and the leasing of government lands in urban areas. These and other charges must be raised in part because the stated objectives of subsidising the urban poor is rarely achieved.<sup>26</sup>

It further states that the equity goal can be achieved more effectively by charging market prices to the few who currently benefit in order to expand provision to the many more who are still in need. Furthermore, a move away from site and service projects for low income groups is one of the issues being considered in the current housing policy review<sup>27</sup>.

The international aid agencies have played an important role in assisting the government in projects meant especially for low income groups. This is clear from the projects that have been undertaken in Kenya such as Dandora Site and Service Scheme, the 2nd urban projects and others. These agencies too, want a move away from subsidies. The World Bank's view on housing subsidies is changing towards minimising them within sufficiently narrow limits to permit replication of the projects on a large scale. Otherwise the projects will hardly be justified for bank financing. Therefore, further steps are needed to reduce subsidies and to target them so that they support the project goals. The replicability of site and service programs is frustrated when they



require large outside subsidies to be successful<sup>28</sup>.

The above view is held by UNCHS (Habitat) that where, in certain circumstances subsidies cannot be avoided, an attempt should be made to cross-subsidise interest rates by balancing average borrowing and lending rates making the housing finance organisations economically viable. It is only as a last resort that subsidies should be considered in order to provide minimally acceptable shelter within affordable limits<sup>29</sup>.

With the above attitudes towards housing subsidies by the main actors in house provision especially for the urban poor, it is imperative to undertake such a study so that the policy makers, planners and other actors in housing can be able to see whether such a move is justified or not. It will contribute to a greater understanding of the various forms of subsidies that do exist for all income groups and show to what extent such subsidised projects have been implemented in both developed and developing countries. From this, lessons may be learnt which may be applicable to the Kenyan case.

The recommendations from this study would help the government in reaching a decision as to who should be subsidised and in what manner.

### The hypothesis

The existing forms of housing subsidies benefit the high and middle income groups more than the low income groups. The subsidised projects for low income groups have to a great extent failed to benefit them.

### The study assumptions

In carrying out this study, the following assumptions were made:-

i) Income is a significant determinant of the type of housing that people can afford.

ii) The low income groups cannot afford conventional housing unless assisted by use of some form of subsidy.

iii) The success of the housing subsidies depends not only on the form, but also on how it is administered.

iv) The price of a house depends on land values, construction costs and the cost of capital.

### The study objectives

The main objective of this study is to identify and evaluate the various subsidy forms for urban housing, with particular reference to shelter for the urban poor. The study therefore, attempts to carry out a survey of the various forms of subsidies, with a view to assessing their appropriateness for the shelter needs of the various target groups and to finally come up with recommendations and proposals on the most effective and appropriate form(s) of subsidy for housing the low income groups. Finally, on how best to administer the housing subsidy for the maximum benefit of the target group(s).

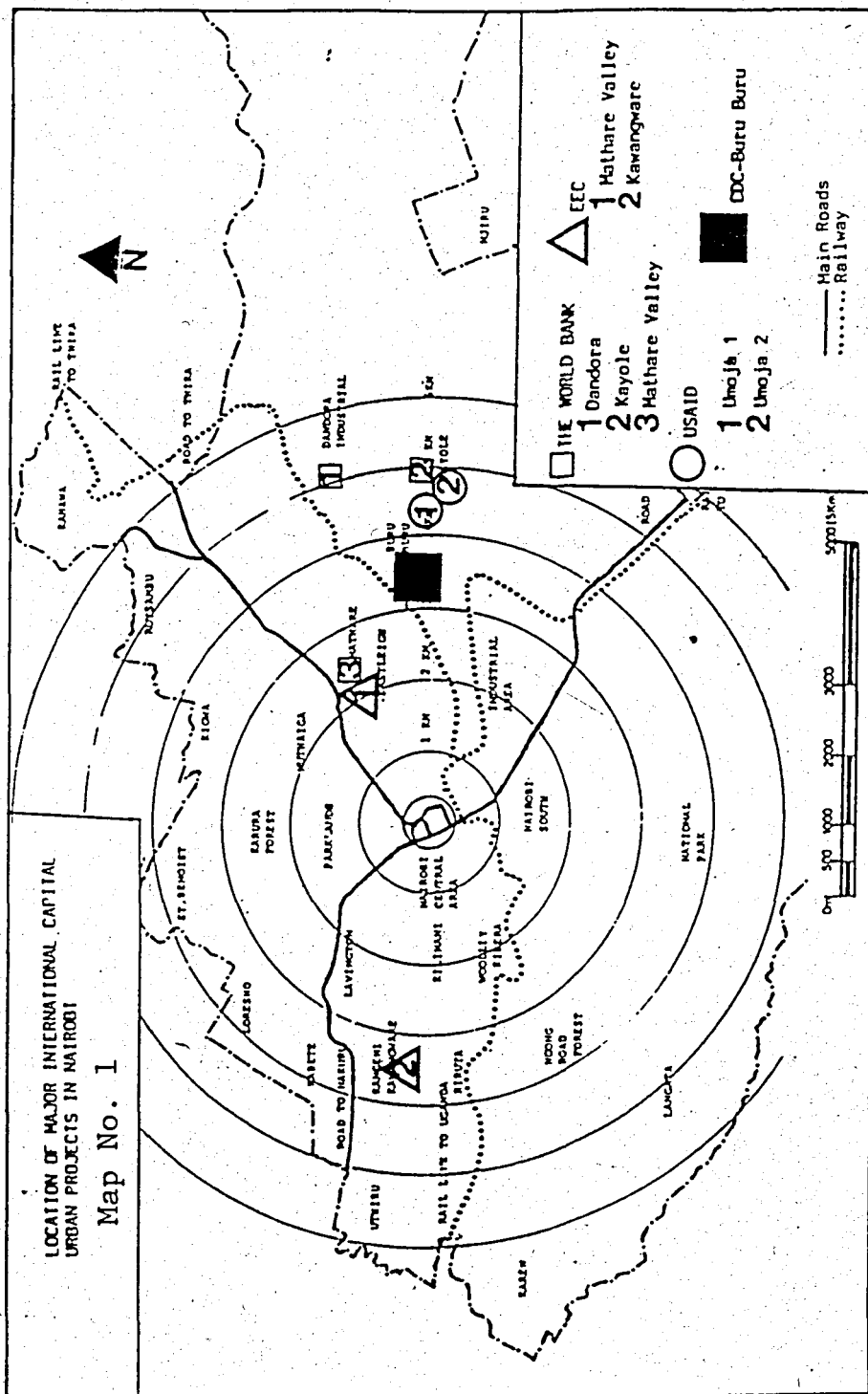
### The choice of the study area

Nairobi's Dandora project was chosen as the study area. The magnitude of the urban housing problem in Kenya is most acute in Nairobi due to the high rate of population growth. About 30% of the population in Nairobi<sup>30</sup> live in substandard housing. Nairobi has the largest squatter and slum settlements in urban Kenya. By the year 1989, 80% of the total planned housing output will be site and service programs in Nairobi. Such programs are found to be in large scale in Nairobi than in any other towns an example being the Dandora project. It was one of the earliest

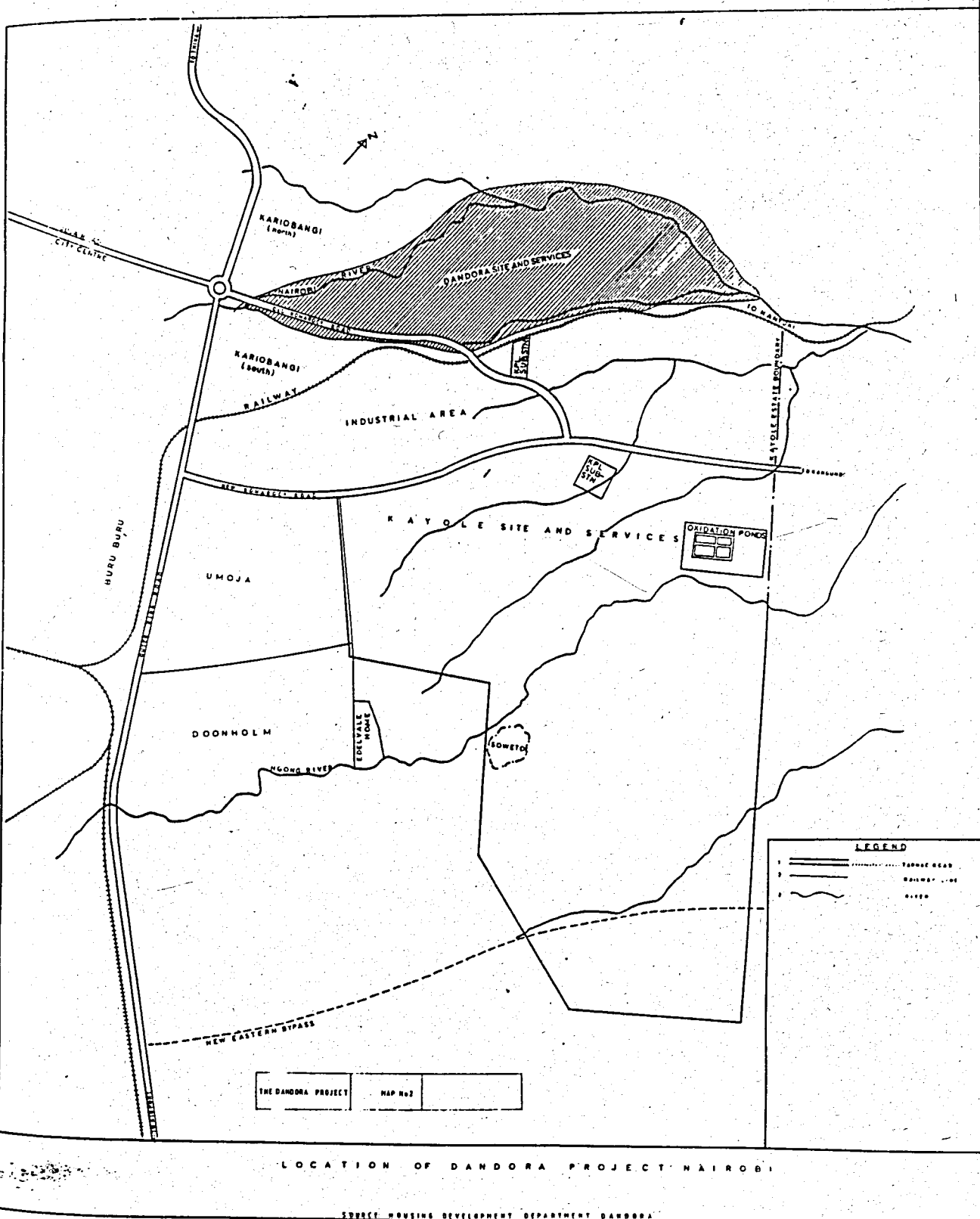
world bank supported site and service programs<sup>31</sup>.

The Dandora project was completed in 1978. The project location is as shown in Map No. 1 and Map No. 2 in this study. In this project 6,000 serviced plots were to be provided over a period of 7 years. This was to be undertaken in two phases. Phase I was to consist of residential areas 1 while phase II consisted of residential areas 2, 3, 4 and 5. Area 6 consisted of land which was to be divided and sold in the market. This is illustrated in Map No. 3.

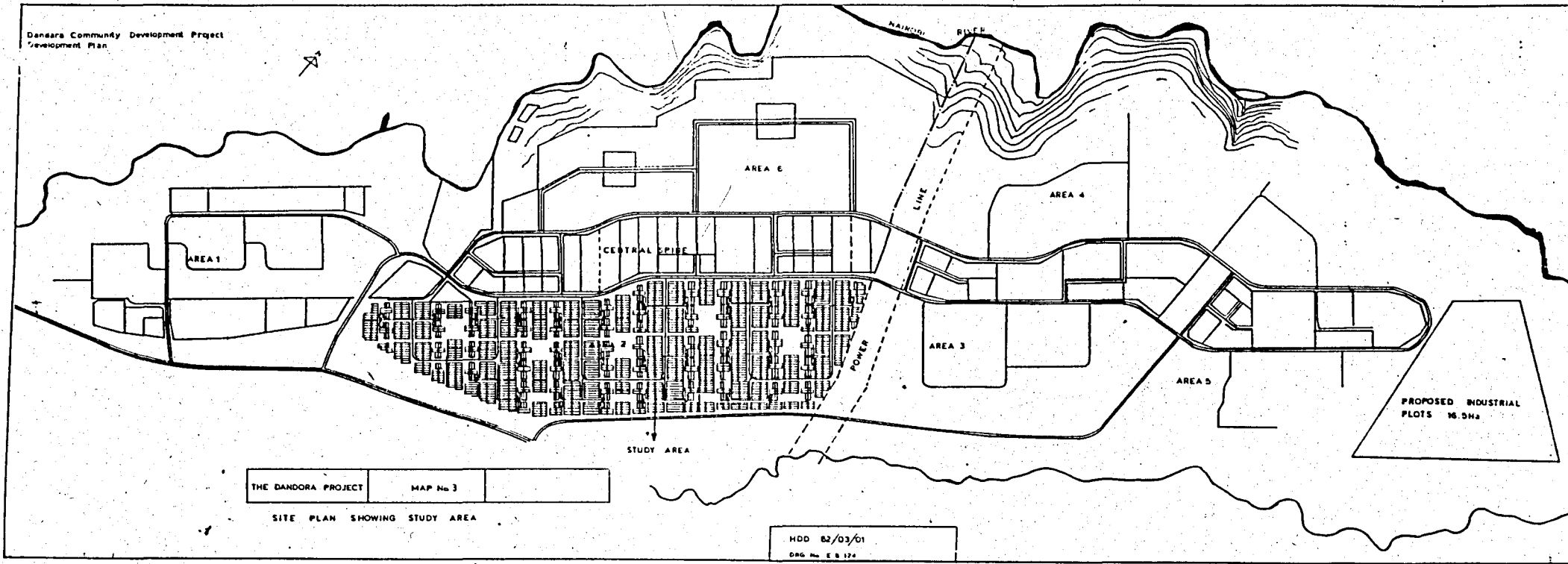
The Dandora project was chosen as the case study as this project contains various subsidies highlighted later in this study. This project has been instrumental in achieving the official government recognition of the objectives of low income housing projects, a commitment which has been confirmed in the development plans and in the priority given to site and service schemes in the allocation of the urban investment resources. It is because this project was meant to be for the urban poor in Nairobi that led to the undertaking of a field survey on the recipients of this subsidised project. Phase II, residential area II was chosen as the study area (see Map 3) because the experience gained in the execution of Phase I was an asset for the implementation of Phase II. Therefore, Phase I seemed to have been a demonstrative phase which prompted the author to choose phase II. Furthermore, a lot of research has been undertaken of Dandora Phase I as shown by the monitoring and evaluation reports<sup>32</sup>.



Kiamba, C.M., "The Role of the State in the Control of Urban Development; Urban Land Policy for Nairobi, Kenya". Phd Dissertation University of Cambridge, 1986.



Source: Housing Development Department Dandora



Source: Housing Development Department Dandora  
Drawing No. EB 124

The scope and organization  
of the study

This study involves an identification and evaluation of the various subsidy forms for urban housing. The subsidised programs studied are for all income groups in Nairobi. This is done so as to assess the subsidy forms, their delivery and the intended target groups in each case. In all the programs, except the case study, the recipients of the subsidised housing were not interviewed. The criteria for evaluation of a particular subsidy are based on the program's efficiency in attaining the stated objectives. Each subsidy is evaluated in the context of the specific problem or market imperfection which it was designed to address.

There are many subsidy programs in existence in Nairobi. However, only the principal ones have been analysed. The subsidised programs have been categorized as public or local authority rental housing, employer housing and owner occupier housing schemes. In Nairobi, all subsidy forms are found to be applied either individually or simultaneously with a number of other forms depending on the financial resources of the subsidising authority and the recipients of such schemes.



City Commission, and the Housing Development Department in Dandora.

Interviews were undertaken on officials of the Kenya Railways, Kenya Reinsurance; Barclays Bank, Housing Finance Company of Kenya, Nairobi City Commission, Ministry of Works, Housing and Physical Planning and the University of Nairobi. The questionnaire used is as shown in Appendix 1.1. This was done for the purpose of identifying and assessing the various forms of subsidies in these establishments; the beneficiaries, the requirements for one to qualify for the subsidy, how the subsidies are administered and other shelter related issues.

The field survey was conducted in Dandora Phase II Area II residents using the questionnaires shown in Appendix 1.2 and 1.3. The breakdown of the plot types in Area II are as shown in table 1.2 below.

TABLE 1.2 BREAKDOWN OF AREA II PLOTS

Type	Number of plots
A	1120
B	519
C	102
Total	1741

Source: Housing Development Department, 1986.

180 plots were randomly sampled for the survey. In a plot there are from 1 - 8 rooms (households) depending on the number of rooms in the plot. It would have been very difficult to interview all the households in a given plot due to the time and funds available for this study. Therefore, in each sampled plot, one household was interviewed. For all the plots in the survey area, the landlords were given top priority. However, in those plots where the landlords were absent, the head of a tenant household that had lived longest in the plot was interviewed. This was necessary as the tenants kept moving from one plot in the same phase to another, or to the newer areas of Phase II.

There were two types of questionnaires used, one for the landlords and the other for the tenants. In both cases, the author was interested in finding out the incomes, rents, occupations of heads of households, and other related issues. For the landlords, the author required more details so as to assess whether they were the original landlords or not, if they were the targetted group and other factors which would clearly assist in assessing the success of the project in reaching the target group.

The data collected and the results thereof is presented in tables and written texts. The researcher realises that the findings from the field survey may have some draw backs. This is because some residents were sensitive to certain issues as their incomes, and hence did not give the correct information. Thus, not all answers received may be representative of the sample survey. Furthermore, the information collected from the Housing Development Department in Dandora did not in certain cases tally with that from the field. As an example, the number of plots that have been resold. In the office, only a few cases were reported; however in the field survey, it was found that the ownership of the plots had changed.

FOOTNOTES

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## CHAPTER TWO

### AN OVERVIEW OF HOUSING SUBSIDIES

#### The housing market

The economically weak groups of the world, need some form of assistance so as to be able to live in decent housing according to the expectations of each country. The literature reviewed in this chapter involves an analysis of the various housing subsidy forms in existence in both developed and developing countries. In the section on developing countries, the subsidies in existence in Kenya are not analysed as they are covered in Chapters three and four. The question as to why housing subsidies have been adopted as one of the policy tools towards housing the poor calls for a look at the operations of the housing market.

Ironically, despite the importance of housing in national development of any country, it is insubordinated in the list of investment priorities, where the allocation of financial resources is left to the market forces of demand and supply, low cost housing finds it difficult to secure the required financial resources. Governments have therefore to intervene in the housing market because when left alone the market process is a slow and inefficient method of increasing the general housing stock and



especially in providing shelter for low income and disadvantaged groups.

A review of the housing market as discussed below, shows the need for public intervention. The concept of demand in the housing market involves the potential buyer tastes and preferences, sensibility to changes in income, in the price or and rent of housing, and in the prices of all other products. The supply depends on the producer's sensitivity to changes in the market price/rent of housing and in the costs of labour, capital, land, materials and any others which he must purchase in order to construct a house<sup>1</sup>.

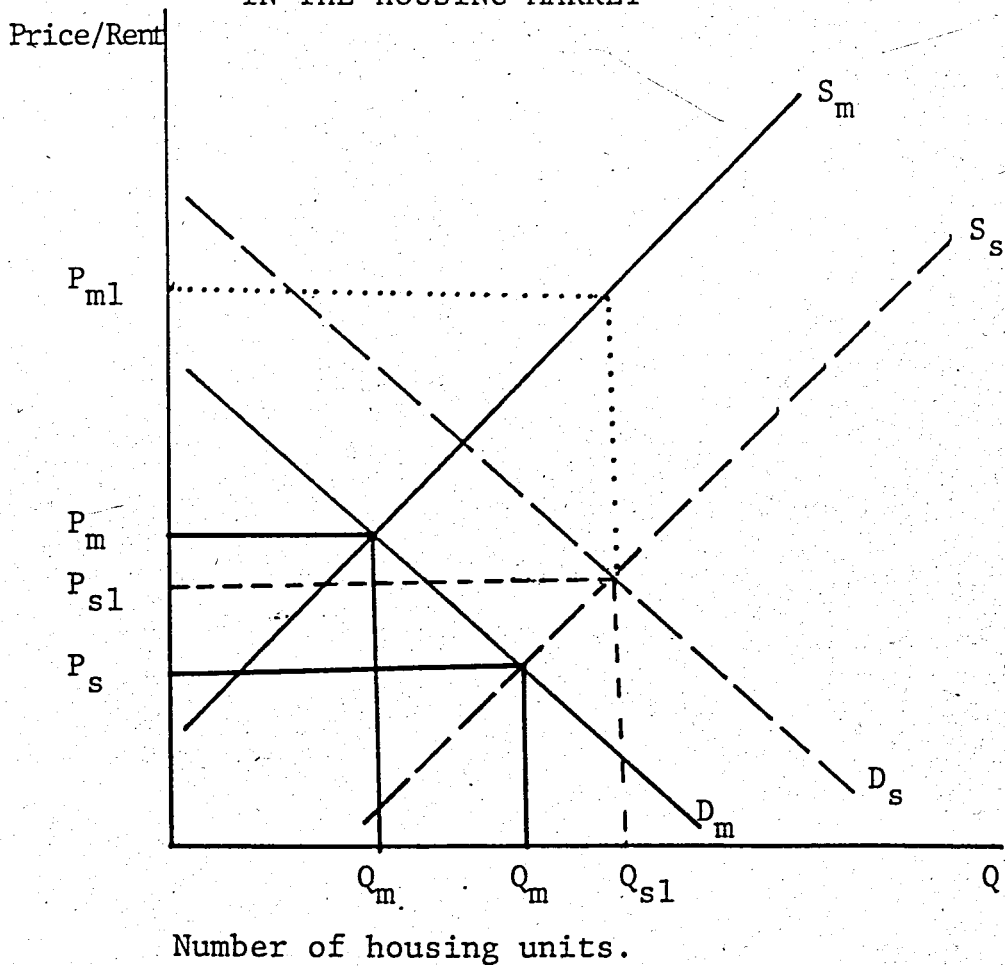
Given tastes and preferences, income, price or and rent of houses, and the prices, of all other products, the buyer expresses an effective demand for a particular quantity (unit) and quality of housing which is offered for sale or, and rental (effectively supplied), by the producer or owner. Any units offered for sale or rental other than those being effectively demanded creates a market disequilibrium which through time is presumed to be adjusted by changes in prices or rent<sup>2</sup>.

The impact of subsidies on the demand side of the market on rents and prices of houses depends on the supply conditions. Usually, housing markets are assumed to have elastic responses to price changes. The higher the price or rent of a unit, the lower the demand. In competitive situations the producers have to maximise their profits and will therefore produce those units which will maximise profits. This normally results in units which fetch high selling prices or high rents. Hence more often than not, producers in formal housing market supply houses for the middle and high income groups leaving the low income groups to look for housing in squatter and slum settlements.

If the government or other authorities want the low income groups to be able to afford housing in the market, they have to intervene in its operations so that it works in a certain desired way. Housing subsidies is one of the approach that may be adopted. If the aim of the government is to encourage an increase in housing stock at prices or rents that the low income groups can afford, either the suppliers of low income housing have to be subsidised or the incomes of the low income groups increased assuming that the increase will mean more money is allocated by consumers to housing.

When suppliers are subsidised, they are able to produce more housing and charge lower rents or prices. Figure 2-1 below shows how subsidies to the suppliers intervene in the normal market operations. Before the intervention,  $S_m$  and  $D_m$  are the market supply and demand curves respectively. This is the equilibrium situation in the short-run. The corresponding prices or rents and quantities are  $P_m$  and  $Q_m$ .

FIGURE 2-1 THE EFFECT OF SUBSIDY TO THE SUPPLIER IN THE HOUSING MARKET



$P_m - P_s$  is the subsidy amount to the supplier in the short-run. Since the price is lower at  $P_s$  those households who could not have afforded housing at the original price  $P_m$  can now afford. Due to the lower price the demand increases in the long-run causing the shift of the demand curve to the right ( $D_s$ ). The supply curve for subsidised housing lies to the right of the actual market supply curve in figure 2-1 ( $S_s$ ). This implies that more housing is being produced at the lower prices than before. Assuming the demand remains unchanged in the short-run, and the elasticity of demand remains the same, any subsidy that makes housing supply possible at the low rents, and or prices leads to more consumption of housing.

When more housing is consumed at a lower price  $P_s$ , the community has extra disposable income which it can spend on other consumer commodities<sup>4</sup>. In the long-run  $QS_1$  is demanded where without a subsidy, the rent or price charged would be  $PM_1$ . However, with the subsidy, the price/rent increases above  $P_s$  and  $PS_1$ , to below  $P_m$ . Therefore, if producers are subsidised, they produce more units at lower rents or prices making it possible for low income groups to afford houses in the market.

Housing subsidies however are not the only way that a government or any authority can intervene in the housing market. Other approaches including a variety of urban policies such as the use of various types of zoning, urban renewal, slum clearance and others are used. If a subsidy is determined to be the only possible means to ameliorate the existing market imperfections in the short-run, the choice of the subsidy form must be that one which makes the smallest claim against resources per unit of housing services supplied<sup>5</sup>. The subsidy must reach the target group and meet both the long and short-run objectives on which it was based.

#### Dimensions of housing subsidies

Subsidies in housing come in many forms, amounts, durations and are delivered in different ways under different circumstances. The main function of subsidy schemes is to give incentives to shifts of capital and man power resources towards the housing sector which, therefore, to a high degree may often conflict with the overall economic goals and targets of a country. Normally, the greatest conflicts turn around questions of resource allocation and in particular on choices between investment in housing and other capital investments<sup>6</sup>.

In spite of the many models of subsidy forms (vehicles), the fuel for their motors is money. The money may be spent for reducing capital costs, operating costs or conversely to increase the capacity of occupants to pay for capital and operating costs. The key difference between the systems may be deemed as the amount of fuel consumption and the general trend is towards more efficient motors<sup>7</sup>. This is clear if the form and the amounts of subsidy in public rental housing is compared with interest subsidies. In public rental units the subsidy will be the difference between the rents paid for these units and the market rents of the same kind of houses.

In interest subsidies the subsidy amount will be seen as the difference between the loans/money repaid with prevailing market interest rates and that paid with the subsidised interest rates.

The characteristics of housing subsidies outlined below, may or may not be crucial to achieving the objectives of a particular subsidy program but would be important in program evaluation. The time period of a subsidy program distinguishes subsidies which have a direct as opposed to a deferred impact on housing consumption or production. Cash grants to low income groups would be classified as direct where

as investment credits or low interests in housing loans as deferred, since the later attempts to influence the time profile of housing investment usually involving a long-run subsidy commitment<sup>8</sup>.

Selective subsidy programs are found when only a single firm or small proportion of households are influenced. An example of this would be in owner occupier allowance given by the employers to only those employees who are owner occupiers. Furthermore, where the magnitude of subsidy is large, subsidies are considered as deep. Hence in public housing where a small proportion of low income families are eligible, the subsidy form may be described as selective and deep. If the magnitude of the subsidy is small, then the subsidy form is selective and thin.

Some subsidy programs may be described according to the duration as once-for all, short-run (cyclical) or long-run (permanent). The house allowance given to employees on a monthly basis is a once-for all subsidy, while conventional public housing is a long-run housing commitment<sup>9</sup>. If one is given a grant in purchase of a house which he does not repay back, then this is a permanent once for all subsidy. Hence in some instances the subsidy itself may be permanent where the one subsidised

continually enjoys the subsidy and at the same time once-for-all since its given once.

In this study, the distinction of subsidy programs is considered in the various forms in which the subsidy is delivered, the target groups and the effectiveness of each form in reaching the targetted groups. As an example, public housing combines an inkind transfer to tenants of various income groups when they pay rents below that at the market. This kind of subsidy form may be differentiated from money transfered as when money is given from a welfare fund to the needy<sup>10</sup>.

Interest rate subsidies are the most commonly used form of housing subsidies in both developed and developing countries. The interest rate is the most important factor in calculating the monthly repayments on any long term loan. An example of a monthly subsidised program where a 20 year loan of Kshs. 1,000/- for various levels of the actual cost of funds and the rate of interest the mortgage loan bears, is shown in Table 2-1<sup>11</sup>.



TABLE 2-1 MONTHLY SUBSIDY PER 1000 FROM LENDING  
BELOW THE COST OF MONEY

Interest rate on mortgage %	Actual cost of money				
	6%	7%	8%	9%	10%
3	1.62	2.21	2.82	3.45	4.10
4	1.10	1.69	2.30	2.94	3.59
5	0.56	1.15	1.76	2.40	3.05
6	0.00	0.59	1.20	2.83	2.49
7		0.00	0.61	1.24	1.90
8			0.00	0.63	1.29
9				0.00	0.65
10					0.08

Source: The Public Finance Sector (exhibit 3)

In the above, the assumption is a loan of Kshs. 1,000/- of 20 year maturity. An example from table; if the bank was lending at an interest rate of 6% while the mortgage to the dwelling unit bore an interest rate of 3%, the monthly subsidy would be 1.62 per KShs. 1,000/-. On the other hand, if the lending was at 9% interest rate, with the mortgage bearing an interest rate of 3%, the monthly subsidy would be 3.45 per Kshs. 1,000/-.

Therefore, the interest subsidy on a loan makes a substantial difference to what the borrower repays back. In most countries, both developed and developing interest subsidies on loans for house construction or purchase are common. The amount of subsidy in each program depends on how low the interest rate is compared to the prevailing market rate.

In the housing context, subsidies may be direct or indirect. Direct housing subsidies include: basing the purchase price or rent on actual construction costs; reduced interest on long term financing and waiving charges for administrative and design work as would be the case of technical assistance and maintenance<sup>12</sup>. In cases where land cost or value is based on the purchase price of land in the open market, this does not constitute a subsidy. Normally, land value is based on unimproved site value of land. However, in subsidy programs land may be granted free or at a cost or value below that at the market.

Indirect subsidies are not specific to a particular house or housing scheme. Typically, these are tax deductible interest payments on mortgage loans, property rates far below the tax propensity and provisions of infrastructural services and community facilities paid through development funds. This last example of indirect subsidies is often found in

cross-subsidization effected through the tax system. When funds are available for housing programs which cannot be put up by the private sector, this also constitutes an indirect subsidy<sup>13</sup>.

Subsidy programs may further be classified as specific and general. Specific subsidies are based on the needs of the individual household which is also controlled continuously during the period of occupation. These are mainly in the forms of personal house allowance given to the head of the household after the household income, size and condition of dwelling is considered. This form of subsidy is common in western Europe. General subsidies are forms of subsidy granted without reference to the recipients need. An example of this is the tax relief on mortgage loans for owner occupation found in most countries.

In the analysis of subsidies in this Chapter the above classifications have not been adopted as in most programs it is not clear the basis of the subsidy. Furthermore in other programs, mixtures of both direct and indirect subsidies are found. However, in those programs where the classification is clear, (then) this is indicated.

### Subsidies in developed countries

In the developed countries subsidy programs are mainly funded by the governments or states and by the local authorities. The subsidy programs take the form of lump-sum premiums and grants, loans and loan guarantees, individual subsidies, graded rents, tax relief, etc. for all income groups. Furthermore, subsidies exist for the homeless as will be outlined below. In this and the next section, only a few selected countries are examined and even in these, only the principal forms of subsidy are considered.

In developed countries, loans from the public sector are one of the most commonly used forms of subsidy. The purpose of these loans is to stimulate production and to lower the costs of living for those households receiving the loans. To stimulate production funds are provided where they are not available from the capital market. In some countries, state loans are given to secondary mortgages and in others in government guarantees for loans. To lower the costs of living, government loans often carry an interest subsidy.

In western Europe, the share of housing production aided by the state loans has been highest in Norway and Sweden; where it was between 70-95% in

the late 70's. In this form of subsidy, loans for purchase or production of houses are advanced to that part of the population willing to buy or build a house<sup>14</sup>.

Such subsidy programs benefit only the high and middle income groups who can afford to build or buy houses. This leaves out the low income groups because even in these advanced economies, the cost of building or buying a house is still high.

Lump-sum premiums and grants are another common type of subsidy in Europe. These involve sums of money given as a "gift" when the occupants move into a new house. A "lump-sum grant" always denotes money given as a lump-sum to compensate for a specified part of the investment needed. The purpose of this amount of money being to reduce the investment cost to the occupants and to lower the cost of the house.

In Belgium, the promotion of housing for persons with modest incomes takes the form of capital grants called premiums. 30-40% of residential construction falls under this scheme<sup>15</sup>. In Belgium, modest incomes excludes the low income groups unlike in Netherlands where the grants are also given to low income buyers of new dwellings. In 1979, the maximum lump-sum premium to low income buyers was raised to 8,400 guilders; (Ksh.75,600). 1 guilder is approximately equal to Ksh.9

in Netherlands, every year, the premium diminishes by 500 guilders (Ksh.45,000). The premium is granted for almost 17 years<sup>17</sup>. Therefore this form of subsidy is used to encourage owner occupation and housing production. This does not benefit tenants.

Individual subsidies sometimes referred to as "personal assistance" are used to narrow the gap between what the dwelling costs and what the occupants can afford calculated on the basis of the income and the size of the family. This form of subsidy is granted to a particular household and is usually paid on a monthly basis. The need for this subsidy is evaluated on regular annual intervals. In Austria, France, Germany, Norway and Finland, individual subsidies are given to both renters and owner occupiers so as to reduce the housing costs. However, in Denmark, Netherlands, the United States and United Kingdom it is only given to the renters<sup>17</sup>.

The advantages of this type of subsidy is that it makes it possible to channel public support directly to those in most need of it. When individual subsidies reduce housing costs, it makes it possible for families with children to move to larger and more suitable dwellings. This form of subsidy results in more effective use of the housing stock. When families with children move to large units, which

are more appropriate in size, small units are vacated for single persons and other small households. In France, they are now trying to convert part of "social housing" into small apartments for young couples who are not prepared to live with their parents but would like to remain in the same neighbourhood or the young people who are attracted by the urban centre of mantes<sup>18</sup>.

The main disadvantage of these individual subsidies is the heavy administration burdens. The payment of individual subsidies usually results in an increase in demand for better and larger units resulting in an increase in rents. The pressure on the rent level is crucially affected by the proportion of the total population covered by the individual subsidy. If a large number of individuals are involved, this results in a remarkable increase in rents due to the high demand as opposed to where only small numbers were involved. Therefore, if a government or any other subsidising authority chooses to use this form of subsidy, it must evaluate it vis-a-vis the increases in rents which are likely to result. The effectiveness of individual subsidies therefore, depends on the other components of the housing policy of a particular country.

Another form of individual subsidy may result when the rent paid for a dwelling is adjusted to major changes in the occupants incomes or family size. The graded rents form of subsidy is appropriate for all income groups since the ability of people to pay is taken into account in arriving at the various rents. In Ireland, those with low incomes having large families and living in low standard houses pay nominal rents which they can afford, while in Belgium large families pay lower rents than small families. If the income of a tenant exceeds the legal limit in Belgium, a rent supplement of 10-60% must be paid by the tenant. However, large families can apply for a reduction of the rent which amounts to 20-50% according to the number of children<sup>19</sup>.

If the above form of subsidy was adopted in developing countries, it would go a long way in benefitting the low income groups. The low income groups in most developing countries have very low incomes and on average have larger families than the middle and high income households. This form of subsidy is easy to administer except in cases where a household has extended families who do not live permanently in the dwelling unit.



The subsidies in existence in tax relief are used to stimulate saving for house purchase or to reduce living costs; by deducting interest payments on taxable income. This form of indirect subsidies increases owner occupier housing. In Canada and the Federal Republic of Germany, it is used to stimulate savings for house purchase by deducting savings upto a certain limit from the taxable income while in the United Kingdom limits are set on tax relief on interest paid on mortgage loans. The tax relief was eliminated in 1974 for most other types of personal loans, except for the purchase or improvement of property. In the Federal Republic of Germany for the period of 8 years following construction of acquisition of a one family house, a person may deduct from each year of the taxable income 5% or the depreciable part of construction or acquisition costs. This applies to both new and second hand dwellings. However, when one changes dwellings, he can transfer the tax relief for the remaining years to the new dwelling. A single person is entitled to this tax relief only once in their life. Hence in this context it is a once-for all subsidy. Married couples are entitled to tax relief twice<sup>20</sup>.

Tax relief benefits the middle and high income groups. If the tax-deductibility of interest payments reduces the taxable income, the progressive income tax scale makes the relief directly proportionate to the persons income. The higher the income therefore the higher the net interest paid on the loan. Those who pay the highest rates of tax and buy the most expensive houses benefit more than the lower income groups who pay lower tax rates and buy cheaper houses. Due to these tax advantages, suppliers opt to build the expensive houses as the demand is higher than for cheaper houses. In effect, this form of subsidy increases the housing stock for high income groups only. If this form of subsidy is to be effective in increasing housing for all income groups, it should be given with restrictions as to the size of the dwelling and setting a ceiling of the amount of the deduction allowed etc., as is done in Austria, France and Ireland.

In most developed countries, the subsidy amounts involved in the tax relief are greater than in interest subsidies contained in government housing loans or in individual subsidies. Those who benefit from tax relief in its various forms are almost exclusively owner occupiers, who are usually in the high or middle income groups. Therefore, its overall effect is

to intensify inequality in housing standards where owner occupier housing for the high and middle income groups is of high standards as compared to those of low income groups.

The developed countries programs for shelter for the homeless involve projects such as construction of flats or housing units in which the homeless are housed or provision of small flats for the young as in France. In Vancouver, British Columbia a 5 storey building was put up to house world war II veterans. Funding for this project came from Canada Mortgage and Housing Corporation, veterans affairs Canada and the City of Vancouver which provided a write-down on the land lease to 75% of market value thereby retaining public ownership and protecting against land speculation. In this case, the subsidy was on the land write-down and loans or funds for the program given which were not to be repaid by the veterans. The subsidies for the homeless in Toronto, Ontario was on the mortgage interests of 2% with 35 years of amortization. This project was for low income singles in the early 80's who were housed in a rooming house setting with apartments<sup>21</sup>.

The above forms of subsidising the homeless reach the specific target groups. Although such programs are relatively successful, they only benefit a small percentage of the needy. They are specific direct subsidies meant to benefit a certain group of the populations.

In the United States, preserving and expanding the supply of rental housing for lower income households and others is a major concern of most local authorities. To address this concern more and more United States communities have been using public subsidies to stimulate rehabilitation (restoration) of privately-owned rental housing. Such programs are a useful compliment to rent subsidies for lower households in areas where the supply of standard rental housing is inadequate, and to help stabilize or revitalize neighbourhoods where private investment in housing has been weak<sup>22</sup>.

In rehabilitation, subsidies are based on the costs of operating and paying debt service on the property including debt service for the rehabilitation loan. Therefore, the rent subsidy includes a grant to the owner paid in instalments to repay funds borrowed for the rehabilitation. In this case, the entire rehabilitation cost is paid with public funds and therefore constitutes a direct subsidy. The rehabilitation

subsidy can thus be regarded as that portion of the total rent subsidy which is reimbursed to owners for costs over and above fair market rents.

There are various forms of subsidies operational in rehabilitation programs. In Los Angeles, innovative subsidy approaches exist. Funds which are got from the local lenders are given to property owners participating in the rehabilitation programs. At the same time, the city agency deposits a sum of money with the lender such that the owner pays an interest rate on the loan below the market rate. The lender invests the city funds and uses the return to make up the difference between what the borrower is paying and the actual interest rate. As the borrower repays the loan, the lender repays the city deposits. No interest is earned by the city but the funds can be re-used. Indirect subsidies can also be given in addition to receiving direct public contributions towards the rehabilitation cost. Property owners may benefit financially in other ways from participating in a public rehabilitation program. These include, lower interest rates on the privately financed portion of the rehabilitation, being granted local tax rebates or exemptions and being given an opportunity to raise rents, where rents are publicly regulated and subsequently receiving rent assistance for some or all

of the tenants of the rehabilitated units<sup>23</sup>.

The indirect subsidies are intended to provide an incentive to the owner to undertake these kinds of rehabilitation. A subsidy given to the owner is intended to induce property improvement, and to some extent influence the character or quality of these improvements, and, or to direct the benefits of the improvements or a portion to some group (usually to lower income groups). The financial incentive provided due to a given amount and form of subsidy, must be sufficient to induce owner participation as needed by the private lenders. Furthermore, the repayable subsidies eventually generate a continuous flow of funds that can be used for future rehabilitation projects or other public purposes.

In the United Kingdom, the approach is to subsidise houses rather than people with households benefitting to the extent that they live in particular houses either in the public sector or in the private sector. The justification of subsidies in United Kingdom is that subsidies to housing can divert more of the nation's capital accumulation into dwellings rather than assets and they can also create inequity among households in what they must pay for a major element of their expenditures. Since housing of decent quality is expensive and cannot therefore be afforded by all income groups, subsidies are needed to expand the housing supply; and reduce the housing

of the tenants of the rehabilitated units<sup>23</sup>.

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because of the higher house prices induced by the subsidy to the owner occupier. The owner occupier subsidy increases with the household's income. As an example, owner occupiers in the top 10% of the income distribution receive almost double the average subsidy as compared to the owner occupiers with lower incomes in the high income category. Therefore, owner occupier subsidy is a specific subsidy inversely related to the need of households.

Subsidies also exist in council housing where tenants pay rents below market rents. The local authorities choose the tenants to be housed in council houses as well as sets the rent. The value of the subsidy is in this case said to be the difference between the rent and the replacement cost. By 1983, the average local authority tenant no longer received any subsidy. This has resulted due to the rise in the council rents. The rents for similar dwellings of local authority housing vary a great deal where some receive subsidies from the same type of dwelling while others do not. The allocation and pricing procedures of local authority housing do not operate in a way which generally directs higher subsidies to needier households. On average, it was found out that households in higher income groups in local authority housing received more subsidy amounts than those of low incomes<sup>27</sup>.



From the above, it is clear that the average owner occupier is more subsidised than the tenant in council housing. Furthermore, the subsidy amounts vary with the tenure chosen. For example, owner occupiers receive more subsidies than tenants, and retired individuals or old couples receive more subsidies than council tenants. Although average subsidies are now lower for both owner occupiers and tenants in council housing, the variation in the cost of housing of a similar size and quality among households still remains. In Britain, there is a move towards removal of subsidies to council tenants so that they pay full market rents. Removal of owner occupier subsidies involved taxing their net imputed rent (that is, imputed rent net of maintenance costs) at the appropriate income tax rate and their capital gains at the capital gains tax rate, and only allowing mortgage interest tax relief in full. This does not entail abolition of mortgage interest relief. If taxed in this way, owner occupiers cost of housing is equal to the minimum rent a landlord can charge. The abolition of the mortgage tax relief however does little to reduce the variations in the cost of housing among households and still favours the wealthier households. It follows that after the reform of the subsidy to owner occupiers and council tenants in Britain, the average tenants in council

housing receives no subsidy while the amount of subsidy to the owner occupier is lower than before.

The subsidy forms found in the socialist countries have remarkable differences to those found in capitalist countries. In socialist countries regardless of the subsidy forms used, the state retains the control over levels of rent and other charges through the system of general subsidies, accorded to selected groups or individual subsidies or grants. This is an essential condition for implementation of the social objectives of socialist housing in a financing system which uses the resources of the population itself. Three types of ownership is in existence. These are state ownership, co-operative ownership and individual ownership. The co-operative type of housing receives more subsidies than "individual ownership" housing. The population of non-agricultural areas benefit more from subsidies for construction than that of agricultural areas. Among the subsidy forms generally granted are non-repayable grants and subsidies, the reductions in the price of housing to a level below building costs subsidised loans and reductions of interest rates. In some instances land is provided free of charge or on low-cost leases and individual construction

carried out by the state in accordance with the principle of socialized investment or subsidy programs<sup>28</sup>.

In Czechoslovakia and Poland the principal forms of subsidies are through co-operatives. The state advances grants which are repayable. The subsidy through co-operatives has the advantages of being a more economic solution than house building for state-subsidized rental housing. It offers a more careful use of residential buildings and maintenance since individual construction financed by personal resources of the population plays a supplementary role.

In Romania, the terms for granting the loans for individual construction involves minimum down-payment loan repayment period and interest rates being based on the total income of the family concerned (calculated per person). The amount of the loan depends on the size of the dwelling (credit for a one-family house exceeding a certain size is subject to a sliding scale) while in Poland, although the subsidy is delivered through co-operatives, it differs from Romania in that the funds used to subsidise the co-operatives come from work establishments, offices and institutions. These are funds which are accumulated after 1% deductions from wages of those working in the above. This money is given to

individuals or co-operatives for downpayment, cost repairs and other expenditure connected with housing. Furthermore, a new type of co-operative in Poland made it possible to modify housing status and to obtain ownership rights for members of co-operatives who originally opted for tenant status accorded on more advantageous financial terms. This makes it possible in Poland to give subsidies to the low income groups or to those in temporary difficulties<sup>29</sup>.

In the highly industrialized countries where the demand for labour is relatively high and is in short supply, subsidies are used in housing to prevent excessive staff changes in certain branches of the industries. This is evident from the subsidy in Czechoslovakia where subsidies are granted according to one's length of service. The subsidy is increased progressively in proportion to years of service or certain conditions of service. In the event of a transfer to another place of work, one loses the subsidy unless one is being transferred by his employer<sup>30</sup>.

Therefore, in socialist countries housing subsidies are delivered mainly through co-operatives and the state rental units. In Yugoslavia, socialised construction is subsidised by funds from work establishments.

Part of these loans being used to purchase dwellings which are rented by the enterprise at low rents or sold back to workers on the basis of long-term loans of 20 years at 2% interest rates<sup>31</sup>. Bank loans is another source of subsidies for house building. These loans finance some 40-50% of house building costs (in Poland the repayment period is between 15 and 20 years and the interest rate is fixed at between 2 and 4%).

In the capitalist countries, in most cases subsidies are not delivered through co-operatives. The extent of the subsidy in most capitalist countries paid by the investor is larger than that paid by the investors in socialist countries, which subsequently leads to a reduction in the price paid by the user of the dwelling.

The distribution of subsidies in capitalist countries except in the subsidised programs for the homeless, favours the high and middle income groups as is evident from tax relief, council housing, state loans and lump-sum grants. Most of the subsidy forms outlined above encourage owner occupation and not renters. However, in most of the countries those who can afford to be owners are usually the wealthy. From this study of housing subsidies in developed

countries, it is self evident that the low income groups who are in most need of subsidization do not greatly benefit from most of the existing subsidy programs. Where they do, only a small group benefit.

The justification of housing subsidies in the first instances comes from the inequality of income and this entails subsidies to be focused on 'low income' households. Therefore, instead of most subsidised programs benefitting those with adequate incomes which can be used to purchase, build or rent houses, they should be directed to the low income groups, who need the subsidies.

John Ersmich<sup>32</sup> in analysis of subsidies in the United Kingdom argues that housing subsidies should not be provided to all households, but limited to the "neediest" households. The author of this study wholly supports this argument since the wealthy households can afford decent housing without being subsidised. Why give subsidies to those who could do without them, is a question that should be carefully considered in the planning and the delivering of housing subsidies in whatever form that may be found most appropriate by the subsidizing authority after consideration of the circumstances of those being subsidised.

Subsidies in developing countries

The population growth in developing countries and the increasing concentration in urban areas has put enormous pressure on governments to mobilize resources to meet the basic needs of their people. This is necessary in view of the magnitude of the housing problems as illustrated by the huge housing deficits. Financing arrangements to close the gap between the demand and supply have become one of the most critical issues of the housing sector for most developing countries. Subsidies in developing countries are either funded by the governments or the governments in conjunction with funds from international aid agencies such as the World Bank, United States Agency for International Development and others. The latter are programs meant for the middle and low income groups. They normally take the form of tenant-purchase, site and service and squatter upgrading schemes. In these schemes, the subsidy element is found in soft terms on materials loans (low interest rates, long repayment periods, grace periods and others), land cost-write downs (free or greatly subsidised), technical assistance and revolving or welfare funds. These projects are integrated into urban projects and appear to have marked advantages over those provided under conventional approaches.

In analysing the various forms of subsidies in developing countries, various countries are considered to show a few examples of the various subsidy forms in existence in developing countries. The subsidies funded by the various governments are analysed first before analysing those subsidies found in aid supported projects from developed countries and international aid agencies.

All employees in Lusaka's central government, local authorities, parastatals and private firms whose houses are registered are entitled to subsidies through "home-ownership" allowance. This is given monthly and is based on the cost of one's house subject to a pre-determined maximum. The higher the cost of the house, the higher the monthly allowance. This allowance is an equivalent to owner occupier allowance given by various employers in Kenya to their employees who own and occupy their houses. It is a direct form of subsidy since it is based on the cost of the house. Furthermore, home-owners benefit from tax deductions on interest due on their mortgage loans. For recipients who earned between 400 and 500 Kwacha per month in the late 70's, the average allowance amounted to approximately 25% of their monthly income<sup>33</sup>. This kind of subsidy only benefits the high and middle income groups since few low income people in Lusaka can afford to own a house. Its effects are the same as those of tax relief in that it encourages owner



occupation and only benefits the wealthy. Furthermore, the higher the cost of the house the larger the subsidy.

In Tunisia, four basic types of subsidy programs are found under the government programs. These are construction subsidies, the interest rate subsidies to a variety of public and private institutions, the government guarantee of housing loans from Soc Tunisienne de Banque (STB) and lastly tax benefits for private limited dividend home builders who build units for low income households. Construction subsidies are product-oriented direct subsidies calculated on per unit basis. This kind of subsidy is given annually for 20 years to those who build houses. To qualify for the payments, individuals must build without recourse to other forms of government assistance. The rigidity of the amount limits the income redistribution impact since it cannot be adjusted or paid out in a way so as to favour the lowest income groups over those higher up the scale<sup>34</sup>. Furthermore, low income groups can only build houses when they have other sources of funds or loans. Private financial institutions are normally unwilling to give low income groups loans since in most cases they do not even qualify. Hence if the Tunisian government gives construction subsidies to those who built without government funds, then the subsidy only benefits the high and middle income groups.

The other subsidy programs in Tunisia do not adequately deal with the problem of insufficiency of incomes of households. This is because the interest subsidies are given to private institutions and individuals to encourage private sector involvement in housing. The interest rate is on three year construction loans. The units built by the private institutions and individuals are let and sold at high prices in the market. This excludes the low income groups. Furthermore, the housing loan guarantees makes financing available by the government to those middle income groups who cannot obtain such financing from the private sector.

In Brazil, the National Housing Bank (BNH) acts as a second link between national and state development banks, savings and loan institutions and real estate credit co-operations. The principal source of BNH's capital is workers unemployment indemnity fund set up in 1966. BNH pays 3% for the use of funds from central bank. When BNH gives loans, it charges from 1-10% interest rates depending on the ability of the borrower to pay and on BNH's evaluation of the appropriate priorities under national housing plan. With the flexibility and discretion accorded to BNH, it is therefore difficult to calculate the specific

level of subsidies and cross-subsidies inherent in the banks lending activities<sup>35</sup>.

However, the low cost to BNH of a legally mandated continuous flow of funds for lending in the housing sector, clearly represents a transfer of resources at less than their full economic cost and indicates that subsidization and cross-subsidization of housing finance is implicit throughout all the programs by BNH. For the low income families which benefit from the BNH funds through organisations, such as the institutions for orientation of co-operatives (Inocoops) the subsidy is an interest subsidy. These interest rates charged on mortgages for low and middle income groups are below market rates. Thus they are indirect consumption subsidies applied on an ad valorem basis as a percentage of market interest rates<sup>36</sup>.

From the above Brazilian subsidies, it is evident that they benefit the low and middle income groups when delivered through the cooperatives and other quasi-public institutions. The interest rate BNH charges for its funds depends on the borrowers ability to pay. Therefore, the lower income groups pay lower interest rates than the middle income groups.

Singapore pursues a variety of subsidy elements in pursuit of a comprehensive nationwide housing program. Subsidies in support of the Housing Development Bank (HDB) efforts take the form of land-cost write downs, loans at below market interest rates for capitalization of HDB expenditures, government allocations to cover deficits in the annual HDB operating budget and the use of worker retirement funds to individuals for the authorization of loans to purchase HDB flats<sup>37</sup>.

HDB sells and rents flats at fixed sub-economic levels. Due to this, the annual expenditure of the board exceeds annual revenue. The resulting deficits are made up by the government through a subsidy provided in the republic's annual budget estimates. All applicants who are allocated flats are entitled to a subsidy ranging from in excess of 60% of the rent charged for a one-room, to approximately 20% of the rental charged for a three-roomed flat. HDB in 1974 raised the selling price of flats to increase the share of the real cost of public housing paid by occupants as a way to regulate the rate of demand via the price mechanism as well as to reduce the magnitude of the subsidy. Individual income levels of households have risen, thus allowing individuals to allocate more amounts of money to housing<sup>38</sup>.

Therefore, although there is a move to reduce subsidies in Singapore, the rents of HDB flats were not increased which meant that the low income could at least benefit from this. In any case their income levels have increased.

Subsidising housing may be aimed at encouraging saving for housing in general or for specifically assisting the first purchase of a dwelling.

In Korea, the government uses tax exemptions on debentures issued by the Korean Housing Bank (KNB) and savings accounts. In 1974, the various types of debentures carried an effective interest rate of from 16.8%-18.8%. The bonds carry the governments guarantee and are exempted from tax. This tax exemption may be classified as a direct production subsidy which stimulates the production of low cost units. The compulsory purchase of national housing bonds required with application for a wide variety of permits and licences, is in effect a tax subsidy. The bonds which carry a government guarantee have 5 year term and carry a 6% interest which is compounded annually. The average annual rate is 6.75%. Purchase is required when applying for building permits, registering real estate, telephone installation and a wide range of business licences. Buyers of middle income housing are required to buy a bond<sup>39</sup>.

The Korean subsidy programs appear to be heavily biased toward public sector housing finance. They do not provide any assistance to private sector efforts. In addition, these programs favour the high and middle income groups.

In Nigeria, subsidies are delivered in the government land-servicing program for urban housing development. The land servicing program generally involves public financial commitment, land acquisition, planning and design of the projects as well as the provision of essential infrastructure before the (serviced) plots are allocated on a leasehold basis. This land servicing program offers a public subsidy to people who wish to build their own housing. The extent to which an applicant for a residential site in the projects actually receives the subsidy depends on whether he can qualify for plot allocation, and if he does, the costs involved in getting a plot. As a result this amount of the subsidy received through the government program varies not only from one person to another but also among various socio-economic groups who form the target population. In disposing off the plots the planning agency invites applications from the general public. This means that the land servicing program has no clearly defined target group even though the

government objectives indicate that housing programs should be directed to low and middle income persons so as to counter the concentration of wealth in a few hands<sup>40</sup>.

From the two projects below it is evident that, the lessees receive varying amounts of subsidy depending on the project. As an example, in Diobu GRA I, the lessee's received a subsidy of ₦ 12,336 (US\$21,584) while those in Diobu GRA II receive only ₦21218.00 (US\$3,881.50) since the land-servicing program is conceived within a general framework of housing policy for the urban population as a whole, there is no explicit government policy defining the socio-economic classes. However, the allocation of plots in the Eagle Island project is biased in favour of the high income persons, high cost developments and some occupational groups. There is a positive correlation between income and occupation and therefore, the pattern of distribution in favour of high income groups means that most of the lessees are people in high wage occupations. As an example, 29% of the lessees in Diobu GRA I (extension) are top military personnel, 21% medical practitioners and another 21% civil commissioners. This is explained by the fact that civil servants of the administrative class advise on the allocation of the plots and all projects except

in Eagle Island were allocated to beneficiaries during the military administration era. Furthermore, in the Eagle Island project, allocation was on the basis of economic ability to develop the site. Such a basis favoured business people whose proposed developments were assigned high capital costs<sup>41</sup>.

It is difficult to assess the success of the above subsidy programs in Nigeria. This is because there is no definite target group. However, it is evident that the subsidies in the land servicing program in Nigeria benefitted the middle and high income groups. This is because eligibility for plot allocation was positively related to the income levels (and occupation) as well as political power. Therefore, there is a regressive distribution of the subsidies in the society. The subsidy benefits the would be owner occupiers and not renters.

The subsidy programs analysed so far in this section are those which are financed by the governments of the various countries without external aid. What follows below however is an analysis of subsidy programs funded with funds from international aid agencies.

The squatter upgrading project for the low income groups in Helwan Egypt was jointly financed by the Egyptian government and the United States. This was to upgrade a squatter settlement of about 340,000



inhabitants. The loan amounts given were based on income, debt carrying capacity, collateral positions and guarantees of the target population. These loans were given on condition that the monthly repayments were to be less than 25% of the family income. The subsidy is obvious given the low interest rates of 7% (compared to the market rate of 13%) for 20 years with 2% payable for legal fees and implementation costs<sup>42</sup>.

This scheme was set up with a high degree of flexibility. The needs and capabilities of the target group were met by adjusting loan amounts to the actual cost of house improvements which were estimated and controlled by the project engineer offering alternative repayment plans, fixed annuity or graduated amortization and providing additional loans if the initial costs proved insufficient for the completion of the improvement<sup>43</sup>. This project was successful in that it reached the target population. The adjustments in loan amounts meant that the beneficiaries received varying amounts of the subsidy according to their needs. This was necessary because people from the same group have differing basic needs which have to be met differently.

Another such program in Egypt is the Ismailia undertaken by the Egyptian government with support of the British overseas development assistance. This is an example of a direct subsidy in the form of land cost write down. The selling prices for serviced land were set at LE 2.25 per square metre when the market price was between LE 10 and LE 15 per square metre. The purchase was financed by the government at an interest rate of 5% per annum at a time when the prevailing market rate was about 12%<sup>44</sup>. Such land price write downs and interest rate subsidies are common in site and service programs in developing countries. This project reached the target group due to proper administration of this subsidised project.

Housing subsidy programs are not only limited to urban areas. In the rural housing projects in Tamilnadu, India, subsidies exist where the government provided free land. A cooperative was set up by the government so as to mobilize funds for the rural settlement development program following the pattern of successful cooperatives in other fields. The target groups were the economically weaker section of the population with a monthly income of less than RS 350 (approximately 30% of the rural population). Interest rates charged were 5%

over a period of 10-20 years depending on the age of the borrower<sup>45</sup>.

The state contribution of Rs 1000 was given to certain groups as a grant while to others as interest free loans. The collateral was the plot title deed and an encumbrance certificate comparable to a mortgage. The allottees became members of the cooperative by paying Rs 10 and could apply for loans when they received the title for a plot. Application for loan was forwarded to the Apex Cooperative which approved the loan and released the funds to the local cooperatives. The borrower was required to purchase shares in the cooperative representing a value of 5% of the loan amount which was deducted from the first disbursement (this was almost a downpayment). Therefore, the terms of the loan were extremely soft and contained a considerable magnitude of interest subsidy. Flexibility of the repayment schedule permitted several options; semi-annual payment for farm labourers according to the harvest season, monthly payments for those employed and the use of "piggy banks" to collect contributions<sup>46</sup>.

These subsidies result from non-conventional financing approaches that were adapted and have to a large extent benefitted the poor. The main contribution of the beneficiaries was the provision of labour alone or the supply of any type of building materials which enable the family or friends to help depending on their abilities<sup>47</sup>. The success of this project in reaching the low income groups was due to non-conventional financing approaches of directing funds through the apex cooperatives.

#### Conclusion

Each of the subsidy forms analysed in this chapter can be expressed as one of two major forms: the first as interest rate subsidies involving the lending of funds by a governmentally supported unit at less than the market interest rate, the second as the capital subsidy which is provided at less than the cost of fair market value. In any one country, various subsidies are to be found. Each form involves varying amounts of money and differing income groups. In each case, the target group and eligibility criteria vary and the amount of subsidy involved..

The forms of subsidies found in developed countries are more than those in existence in developing countries. As an example, in the rehabilitation programs in Canada, where the house owners are subsidised so as to improve their houses and the graded rents system where different subsidies are received in the forms of low rents depending on a particular household, are forms which are rare in developing countries. However, similarities exist in subsidy forms in developed and developing countries. For example, in both cases subsidies delivered through tax relief exemptions to encourage owner occupation are found; although the strategies for achieving the objectives of such programs differ in each country and in each project.

Generally, most of the subsidy forms analysed except in a few cases benefit the middle and high income groups. They are mostly directed to owner occupiers than to tenants, except in the Singapore HDB flats and the rent rehabilitation programs in Canada.

It is obvious from the analysis of subsidy forms in developed countries that the subsidy forms in socialist countries differ from those of the capitalist countries. In the socialist

countries, the subsidised programs are financed by funds from the people's own resources channelled mainly through cooperatives and as construction subsidies. These have been beneficial to the target groups. The subsidies delivered through cooperatives as in Romania, Brazil and Tamil Nadu in India have reached the targetted groups. They only benefit the members of the cooperatives. If this way of channelling funds for subsidised programs is used, it seems that the majority of the people for whom the subsidies are intended would benefit. Other successful subsidy delivery forms is through graded rents, individual subsidies and subsidies for the homeless; in developed countries. These reach the target group which are mainly the low income.

The success of a subsidised program if measured by how far it reaches the targetted group depends not only on the form but also on its administration. In the above subsidy forms for low income groups the amount of subsidy is determined on the basis of the households needs and ability to pay. In subsidies delivered to members of a cooperative, it will be successful if the administration is proper. In certain subsidy forms, as in personal or individual subsidies, the administration burden

is heavy. The subsidy in this form if given to a large number of people will result in a lot of administration and an increase in demand for certain types of housing. This may increase rents or house prices.

The subsidised programs for the low income groups in developed countries, that is, in programs for the homeless, personal or individual subsidies and subsidies given through graded rents only benefit a small percentage of the low income groups. These programs do not significantly increase the housing stock. If the subsidising authority's intention is to increase housing stock in any country, then it would be necessary to use other forms of subsidies such as; construction subsidies and lump-sum grants given to purchasers of houses to be let to the low income groups and house builders.

In developing countries, the more successful subsidy forms with respect to reaching the low income groups are those supported by funds from international agencies. These have taken the forms of squatter upgrading and site and service schemes as illustrated by the Egyptian case study. The success of these programs can be attributed to the

flexibility accorded to repayments of the loans. This takes into account the family circumstances in each case and works out the amount that that particular household should reasonably pay without too much stress.

For subsidised projects to be successful in both developed and developing countries, it is of paramount importance in project planning to define clearly the target group and how the project is to be administered. This is because, it is by how far the subsidy reaches the target group that the project will be evaluated. This was the lesson learnt from the land-servicing programs in Nigeria. The target groups had not been defined and hence there was no discrimination as to those who would qualify for the plots. Hence people in certain occupations directly involved in the project, and those with political influence are the ones who benefitted most.

The form in which the subsidy is delivered determines to a large extent its success as seen from the subsidy forms analysed. Different forms of subsidy involve varying amounts of administration in terms of money and manpower. The political factor of a country determines the success or failure of the



subsidy programs. . This is because the governments in most programs play a major role in the determination of the form of subsidy, administration, magnitude of the subsidy and other related issues.

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45. United Nations., Promotion of non-conventional approaches to housing finance for low income groups. pg. 38
46. Ibid., pg.39
47. Ibid., pg. 39.

## CHAPTER THREE

### EVALUATION OF SUBSIDY PROGRAMS IN KENYA

#### Introduction

The subsidy programs in this chapter are categorized as employer housing, public or local authority housing programs and owner occupier housing. In employer housing, the subsidy is found when employees are housed in units which are of higher market rents than the house allowance they foregone. The employer subsidises them by meeting the difference between the foregone house allowance and the market rent of the dwelling. In cases where the employers own houses for their staff, the subsidy amount would be the difference between the foregone house allowance and what rent the house would be let at in the market.

The public housing programs involve local authority rental units in which rents charged are below the market rents and in the tenant purchase schemes. The owner occupiers are subsidised through tax exemptions on mortgage interest, subsidised staff mortgage schemes and in site and service schemes where various forms of subsidies may be extended to the allottees. The above classification is merely for purposes of analysing the subsidy programs in this study.

Public housing programs

In tenant-purchase schemes, the National Housing Corporation (NHC) or local authorities plans, constructs and finances the scheme. In certain cases, local authorities get funds through NHC from the government to put up these units. The funds are given to local authorities for 40 years at 6.5% interest rates. Therefore, the local authorities are subsidised due to the long repayment periods and the low interest rates compared to the 1987 market rates of 14%. If the money had been borrowed from private financiers it would be repaid over 15-20 years at 14% interest rates. Due to this subsidy, the local authorities are in principle able to construct tenant-purchase and rental units.

The public purchase houses in the tenant purchase schemes after paying a deposit of 10%. The rest of the loan is repaid over 20 years at 6.5% interest. The 6.5% interest rate is lower than the market interest rate since the councils charge the same interest as they are charged by the National Housing Corporation (NHC). Therefore the allottees of tenant-purchase schemes enjoy this interest subsidy. In the Kimathi tenant-purchase housing scheme in Nairobi (1966), financed by the United States Agency for International Development (USAID), there were no specific income



criteria other than the ability of would-be beneficiaries to pay the 10% downpayment as per the agreement. However, the tenants actually paid 5% downpayment while the other 5% was met by Nairobi City Council (NCC) out of the council resources. The funds were provided at a composite interest rate. Composite interest rate is lower than the basic income tax rate of 8.5% for 20 years although others opted to pay for 10-15 years at considerably higher monthly amounts<sup>1</sup>.

The NHC and the local authorities also construct rental units. These are let at rents which are below market rents to their employees and the public. The Nairobi City Commission (Council) after receiving funds from NHC for 40 years at 6.5% interest rates are able to construct houses and charge low rents. In effect, those tenants living in Council housing are subsidised. The subsidy is equal to the difference between the market rent and the council rent. Table 3-1 shows a few examples of this subsidy.

TABLE 3-1 SUBSIDIES IN NAIROBI CITY COUNCIL  
RENTAL HOUSING

Locality	Accommodation	Market Rent Kshs.	Council Rent Kshs.	Subsidy Kshs.	%
Peponi Rd.	3 B/R	8,000	3,500	4,500	56.3
New Dagoretti Ring Rd.	3 B/R	5,000	2,700	2,300	46
Riverside	3 B/R	8,000	3,500	4,500	56.3
Dennis Prits Rd.	2 B/R	5,000	2,200	2,800	56
Ngong Rd.	3 B/R	4,700	3,000	1,700	36
Kabete	2 B/R	4,700	2,000	2,700	57.4
Caledonia	2B/R(flat)	3,000	1,800	1,200	40
Mawingu Court	1B/R(flat)	2,500	1,500	1,000	40
Jamhuri	3B/R(flat)	2,000	1,000	1,000	50
Madaraka	3B/R(flat)	2,500	1,000	1,500	60

Source: Nairobi City Commission (City Hall) 1987 January.

From Table 3-2, the subsidy to tenants of council housing is between 36-60%. The subsidy amount depends among other things on the market rent of the house, which in turn depends mainly on the location of the house and its size. The allocation of these houses to the public is supposed to be through the points system.

Employer housing programs

Some staff in the civil service, University of Nairobi and Kenya Railways are housed by their employers. The subsidy in these employer housing is found to be the difference between the market rent for the units and the house allowance foregone plus any other sums added depending on such factors as the category of the house (civil servants), or size of accommodation (University of Nairobi). The subsidy is to the tenant either in units owned or leased by their employers. For civil servants, the government quarters and the leased houses are allocated in accordance with a point's system determined by the employee's marital and family circumstances, length of service and basic salary. Thus, the more the number of points one has, the greater the prospects of securing government quarters and leased property<sup>2</sup>.

The civil servants, apart from foregoing the house allowance shown in Appendix 3-1, also add the following sums of money depending on the category of the house.

TABLE 3-2 ADDITIONAL MONEY PAID BY CIVIL  
SERVANTS HOUSED BY THE GOVERNMENT

Grade	Category	Extra amount per month Kshs.
Low	G	26
Low	F	38
Middle	E	63
Middle	D	106
High	C	176
High	B	266
High	A	304

Source: Ministry of Works, Housing and Physical Planning. Housing Department, 1987.

It can therefore be deduced that the subsidy for civil servants where they occupy government or leased property can be calculated as follows:

$$\text{Subsidy} = \text{market rent} - (\text{house allowance} + \text{additional sum}).$$

The subsidy in leased property is met by the government. Table 3-3 illustrates such subsidies in a few selected cases.

TABLE 3-3 SUBSIDIES IN CIVIL SERVANTS' EMPLOYER HOUSING

Locality	No. of bedrooms	Category	Market Rent Kshs.	House Allowance	House Factor	Subsidy Amount	% Subsidy
Kileleshwa	4B/R	A	10,000	3,750	304	5,946	59.5
Loresho	4B/R	B	10,000	3,750	266	5,984	59.8
Golf Course	3B/R	B	3,500	2,530	266	704	20
Plains-view	4B/R	C	4,600	3,375	176	1,049	22.8
Southland	3B/R	C	4,000	2,530	176	1,294	32.4
Highview	3B/R	D	3,500	2,530	106	864	24.7
Ngummo	3B/R	D	3,500	2,080	106	1,314	37.5
Akiba	3B/R	D	4,500	3,375	106	1,019	22.6
Buru Buru IV	4B/R	D	2,600	1,655	106	839	32.3
Buru Buru I	2B/R	D	1,800	1,370	106	324	18

Source: Market Rents: Daily Nation: March 27th , 7th April, 1987  
Civil Servants Housing Allowance 1987.

The subsidy for civil servants, both tenants and owner occupiers had been worked out in the Ndegwa Commission of Inquiry<sup>3</sup>. Senior officers in government houses receive a greater subsidy than those in lower job groups who are similarly housed. As an example, the officer in job group R and above, in Kileleshwa gets a subsidy of 59.5% while an officer of job group N and P which is a lower group than R living in Southlands

gets 32.4% subsidy. Finally an officer in a lower job group than the above as in job group H and J enjoys only a 18% subsidy. Therefore, the amount of subsidy enjoyed by civil servants housed by government depends on job group. Furthermore this also depends on the category of the house since this determines the amount of money to be paid by the tenants in addition to the house allowance foregone. The categorization of civil servants housing is questionable as houses of the same size (accommodation) in the same localities may belong to different categories.

The subsidy to the University of Nairobi's employees living in University houses or leased property are also subsidised in the same way as the civil servants housed by the government. The house allowance for University staff is as illustrated in Appendix 3-2. The allocation criteria for leased or University housing is based on the points system. The points are given depending on the designation, period of service, marital status, number of children and first come first served basis. In addition to foregoing the house allowance, the staff housed have to pay the money shown below in Table 3-4 depending on the number of bedrooms of the houses they occupy.

TABLE 3-4 ADDITIONAL MONEY PAID BY UNIVERISTY  
STAFF HOUSED BY THE UNIVERSITY

Number of Bedrooms	Extra amount per month Kshs.
1	200
2	300
3	400
4	500

Source: University of Nairobi, Estates Section  
1987

Table 3-5 below shows a few examples of subsidies enjoyed by University staff in University housing or leased property.

TABLE 3-5 SUBSIDIES IN UNIVERSITY OF NAIROBI  
STAFF HOUSING

Locality	No. of Bedrooms	Market Rent Kshs	House Allowance	Additional Amount	Subsidy Amount Kshs	% Subsidy
Loresho Ridge	4B/R	6,500	3,750	500	2250	34.6
Lavington	4B/R	6,500	3,750	500	2250	34.6
Golf Course	3B/R	5,500	3,750	400	1350	24.5
Lenana Road	3B/R	4,500	3,750	400	350	7.8
Menelik	2B/R	3,500	2,530	300	670	19.1

Source: University of Nairobi, Estates Section 1987

The market rent is either what the University pays the owner of the leased property or what the house would otherwise be let at in the open market.

Discrimination exists both in the distribution and amounts of subsidy in this program. Staff of the same job grade in different localities, living in the same size of house are found to be getting varying amounts of subsidies. As an example, a professor living in Loresho receives a subsidy of 34.6% of the market rent while a professor in Golf-Course receives a lower subsidy of 24.5%.

The subsidy amounts depend on the market rents of the houses. Staff living in the same locality may have different subsidies amounts due to the different market rents. As an example, in Lenana Road, 2 houses of 3 bedrooms each are leased at Kshs. 4,500 and Kshs. 5,200 respectively. Hence lecturers living in these two units will receive different subsidies of Kshs.450 and Kshs. 1,050 respectively.

Most of the Railway employees are housed in Railway Quarters. It has always been the Kenya Railways policy requirements that all its staff be assisted in housing. The subsidy to staff housed is given along the same lines as that of civil servants and the University (except that the employees only forego their house allowance and do not pay any



additional sums). Table 3-6 below illustrates the subsidy.

TABLE 3-6 SUBSIDIES IN RAILWAY STAFF HOUSING

Locality	Accommodation	Market Rent Kshs	House Allowance	Subsidy	% subsidy
Lavington	3 B/R	6,000	3,375	2725	45.4
Upper Hill	3 B/R	3,500	2,530	1070	30.6
Parklands	2 B/R	2,500	1,600	900	36
Ngara	2 B/R	1,500	870	630	42
Muthurwa	10x10 room	500	350	150	30

Source: Estates and Rating Section, Kenya Railways 1987

The subsidy amounts for those in the Corporation housing vary with job grades. However, the Railway employees as opposed to those in civil service and University of Nairobi receive more or less the same range of subsidy amounts (range is narrower) as a percentage of the market rent as this varies between 30-45%.

Owner occupier subsidies

In Kenya, all owner occupiers receive subsidies through tax relief on mortgage interest payments. Interest on a mortgage on a loan for the purpose of purchase, construction or improvement of a house is

allowed as a deduction from income. The house must be owned and wholly occupied by the individual<sup>4</sup>. In the Income Tax Cap. 470<sup>5</sup> Laws of Kenya, the law governing the exemption of this tax is cited. The amount of mortgage on which interest is paid should not exceed Kshs. 400,000. If it is above this figure, then it is apportioned accordingly. The loan or mortgage must be from:-

- a) A bank or financial institution under banking act.
- b) An insurance company licenced under the insurance companies act or
- c) A building society licenced under the building societies act.

The interest is limited to the lending rate charged by commercial banks. If the premises were occupied for only a part of the year, the deduction for interest is reduced accordingly.

Owner occupiers in banks and financial institutions receive other subsidies in addition to tax relief on mortgage interest. The staff mortgage schemes of Kenya Reinsurance and Barclays Bank involve giving advance loans to employees to purchase or construct houses at lower interest rates than the market rates, longer repayment periods, grace periods or other factors which makes it easier for employees to be owner

occupiers than if such schemes were absent. In the Kenya Reinsurance Corporation (Kenya Re) the following terms have to be met to qualify for the loan:-

- i) To be on permanent and pensionable terms
- ii) Valuation report from a qualified valuer approved by the Corporation has to be submitted together with a quotation for house mortgage advance except for new houses.
- iii) No employee is allowed to sell or transfer a house bought with assistance of the Corporation within the first 3 years.

In case one wants to sell, or transfer to another financier and at the same time apply for another house loan, such loan is normally not approved by the Corporation, financier or the undertaking bank.

- iv) The employee should not let in part or in total without prior consent from the managing director any property bought with assistance of the Corporation.

The Corporation advances upto 95% of the mortgage. This is calculated on 5 years gross salary subject to ceilings set up by the Corporation per job grade. Before the loan is approved, the employee has to pay 5% of the cost of the house. He also has to meet the cost of stamp duty, registration fees, and legal fees out of his own sources. The interest on the loan is 5% per annum for the duration of the employment period. One is expected to remain in employment for as long as the repayment period or the retirement age, whichever comes earlier. If he/she leaves before this period is over, one repays the loan at the current commercial interest rates. The repayment period is 20 years with a grace period of 3 months. The amount of loan advanced is secured by first legal notice which contains approved terms and conditions. The property charged is not to be under joint proprietorship. One continues to pay the loan even after retiring.

No house loan is approved where an employees entitlement is less than the cost of the house. If one gets a house costing more than what he is entitled, he has to meet the difference before being given the loan. The loan repayments and interest repayments are by way of monthly deductions from salaries. The employee is required to take a house

comprehensive owners insurance policy and mortgage protection policy with the Corporation. Those employees with loans are required to declare at the beginning of each year whether they are in occupation of the houses or letting them. The employees with houses through the scheme but not residing in them do not get house allowance, and repay the loan at an interest rate of 7% per annum.

From the above staff mortgage scheme, the subsidy enjoyed by owner occupiers is obviously large since the Corporation advances upto 95% of the loan. An interest subsidy exists since the loans are repaid at 5% interest rates (compared to the prevailing market interest rates of 14%). Due to the low interest rates, the cost of the house to employees is less. Furthermore, the owner occupiers not only get the tax rebate but also an enhanced allowance shown in Table 3-7.

TABLE 3-7 OWNER OCCUPIER ALLOWANCE OF KENYA RE STAFF

Job Grade	Cost of House Kshs.	Owner Occupier Allowance Kshs
11 & 12	650,000	6,875
10	600,000	6,500
9	550,000	5,500
8	500,000	5,000
7	450,000	4,400
6	400,000	3,900
5	350,000	3,500
4	300,000	2,875
3	250,000	2,500
2	200,000	1,950
1	150,000	1,300

Source: Kenya Re. January 1987.

In Kenya Re, any employee can get the house loan as long as they meet the stipulated requirements.

The Barclay's bank staff are in two categories. The first group is management, some of whom are housed in case of Nairobi while in other towns all are housed. The second group consists of unionisable staff who are entitled to house allowance according to their job grades. Would be owner occupiers are

given assistance to buy/build a house. To qualify for the loan, one has to be over 25 years old, and produce an official valuation report for the house. The loan is not given in excess of the valuation figure. It has to be equal to the valuation figure or less. The staff loans scheme is as indicated below<sup>6</sup>.

I House Loans

First house loans: Terms and requirements:

- i For residential purposes only
- ii Minimum periods of service ----- 6 years
- iii 100% of cost of house plus legal charges met by the bank
- iv Loans granted to male or female staff married or getting married in six months
- v Unmarried ladies who should be 35 years old and of 12 years service
- vi Loan repayable over 20 years or retirement whichever is earlier
- vii Interest chargeable ----- 4% per annum.

II Maximum amounts of loans

This depends on whether the house is in a big town or small town.

A. Small Towns.

- i Management - 4 times basic annual salary
- ii Section heads - 4 times basic annual salary
- iii Section heads, clerks, and subordinate staff  
- 6 times basic annual salary.

The loan is a secured legal mortgage over property. When the first house is sold, to purchase another house, 75% of the net sale proceeds of the old house should be utilized in the purchase of the new house.

The above loans to Barclays Bank staff are repaid over 20 years at 4% interest rates. There is no grace period. The payment is deducted from the consolidated salary. The basic salary is taxed, then the loan amount is deducted. Loans are given according to the above terms and should not exceed half of the basic salary. The subsidy element is found in interest rates which are below the market interest rates.

Bank employees also receive subsidy in house improvement loans. The improvement loans are calculated as the amount not above six times of one's salary. This loan is given to all employees irrespective of whether they are owner occupiers or renters. It is repaid over 30 months (2½ years), at 6% interest rates. Hence it is an interest subsidy



program. The owner occupiers at the end of the year also receive tax rebates on the mortgage interest.

The owner occupiers in the civil service, University of Nairobi, other work establishments even in the private firms enjoy the tax rebate subsidy as long as they have borrowed money from the financial institutions as laid out in the Income Tax Cap 470 Laws of Kenya. In the civil service, the owner occupier allowance is the difference between the actual rental bill subject to the maximum limit not being exceeded, and the rent the employee would pay to the government for an equivalent category of government quarters<sup>8</sup>. Owner occupier allowance is assessed as the difference between 25% of the capital cost of the building and land, and the rent the officer would have paid had he occupied government quarters of a similar category, subject to specified capital cost ceilings. Due to the rent committee recommendations 1985, the owner occupier allowance continued to be assessed at 15% of the cost of the house. The new capital ceilings are as shown in Table 3-8.

TABLE 3-8 CIVIL SERVANTS OWNER OCCUPIER ALLOWANCE

Job Group	Capital Cost Ceiling Kf	Maximum Allowance per month Kshs.
R and above	27,800	6,875
Q	26,000	6,500
N and P	18,000	4,500
L and M	15,000	3,900
J and K	11,500	2,875
G and H	7,800	1,950
E and F	5,200	1,300
C and D	3,900	975
A and B	2,080	520

Source: Civil Servants Housing Study<sup>9</sup>.

Therefore, the owner occupier in civil service although not assisted in any way to be owner occupiers, enjoy the tax rebate subsidy on mortgage interest and receive the above enhanced allowance which is more than that received by tenants in corresponding job groups.

The university staff receive owner occupier allowance and are given a loan for downpayment for a mortgage arranged with a bank or a finance company. The maximum given is 80% of one's basic salary as long

as they are on permanent and pensionable terms and are confirmed in their appointments. This amount is repaid over 8 years at 14% interest rates. Although no subsidy exists on this loan, it makes it possible for university staff to be owner occupiers. In most instances, would-be owner occupiers find it difficult to raise money for downpayments. The university owner occupier allowance, in Appendix 3-2 shows that the owner occupiers receive larger allowances than those living in university houses and in privately rented accommodation.

Building societies and financial institutions have savings and deposit schemes which have some subsidies due to tax exemptions. These are specifically designed so as to make would be owner occupiers to be motivated to save so as to be able to get the initial downpayment or in cases of those with lots of money to buy a house or build after saving. In the Housing Finance Company of Kenya (HFCK) this scheme takes the form of housing bonds. This scheme is wholly controlled by the government of Kenya, which controls the interest rates and the operation of the accounts. In this scheme, depositors put a certain amount of money as required by HFCK for a fixed period of time thereby earning interest on it before withdrawing it to invest in housing. The

tax rebate depends on the amount of money and the duration of saving. The higher the amount, the higher the interest rate and tax exemptions as shown in Table 3-9.

TABLE 3-9 SUBSIDIES FOUND IN HOUSING DEVELOPMENT BONDS

Term	Rate of untaxable interest %	Actual yield on tax free investment where tax would have been payable at rates shown			Interest payable
		Tax at 45%	Tax at 50%	Tax at 65%	
3 months	10.00	18.64	20.50	29.29	at maturity " " Half yearly " "
6 months	10.75	20.07	22.08	31.54	
9 months	11.00	20.54	22.60	32.29	
12 months	11.25	21.03	23.13	33.04	
24 months	11.50	21.51	23.66	33.80	
36 months	11.75	21.99	24.19	34.55	
Subscription	12.00	22.47	24.72	35.31	

Source: Interest rate on housing development bond deposits. HFCK January 1987.

Interest on subscription bonds is payable on 31st December each year. The interest on 12, 24, 36 months is payable yearly from the date of deposits. The minimum holding in all types of bonds except subscription (Kshs. 1,000 monthly for 36 months), is Kshs. 10,000. The maximum holding in all types of bonds is Kshs. 500,000. The tax exemptions on the amounts is calculated depending on the amount deposited. The interest rates for those in normal savings accounts is 11% of HFCK. Therefore, housing bond deposits except for 3 months, 6 months and subscriptions, are at higher interest rates than 11%. The subsidy element is therefore on tax exemptions. As an example, a deposit of Kshs. 10,000 in a savings account with 45% tax for 1 year, is charged a tax of Kshs. 21.51. However, if the same amount is put in housing bonds for same period, the depositor is not charged the tax. To that effect the subsidy amount in this case is 21.51.

From the above subsidised programs, the subsidy distribution is characterized by both horizontal inequity (example in employer housing, officers in the same job group receive varying amounts of subsidy although living in the same type of house, in the same locality), and vertical inequity, where higher income households generally receive more housing subsidies than

households in the lower scales. This is obvious from all programs analysed in this chapter. The only institution which attempts to have equitable horizontal distribution of the subsidy is the Barclays Bank where the loan given to people in the same job grade is more or less equal. Furthermore, there is equitable vertical distribution of the subsidy where the loan given is dependent on the basic salary times a certain factor for those in higher incomes as management, the factor is four while for staff in lower scales such as subordinate staff the factor is six.

Owner occupiers in most countries are favoured in housing subsidies not only in the amounts of subsidy received but also in the long-run beneficial effects as shown in this chapter and in chapter two. At the end of it all they are the proud owners of properties. Housing as an investment increases in value over time; depending on certain various factors. John Ermisch<sup>10</sup> found out that the owner occupiers in Britain were more heavily subsidised than tenants. The discrimination existed because owner occupiers received a much larger subsidy on average than tenants in council housing of the same salary scale. The owner occupier subsidy also increased with an increase in salary such that the higher income

groups received larger subsidy amounts than the low income owner occupiers. This is also the case in Kenya. Owner occupiers receiving more subsidies than tenants in both council housing and employer housing. In Kenya, as in Britain therefore, there is a variation in subsidy amounts between different tenures, among different income groups and local authorities. From the programs analysed so far, the bulk of the low income groups are left out in the subsidised programs both in employer housing, public or local authority housing programs and in owner occupier programs. Therefore, in the next section, subsidies in a typical low income housing scheme are analysed showing the various subsidies that exist.

#### Subsidies in Dandora

The various subsidies in Dandora are given at different stages of the project. Therefore, some are of a continuing nature as in interest rate subsidies on the material loans and the technical assistance which continues to be given upto now. Others are once-for-all given or received as in the site preparation and in the provision of on-site infrastructure. The subsidies in Dandora were meant to benefit the residents of this project. To this effect they were selective subsidies.

Before analysing the various subsidies found in Dandora, the basis for cost recovery is illustrated as it is from this that costs are apportioned. It is from this apportionment that one can determine whether the subsidies exist or not. The total capital costs of the projects is recoverable from both Nairobi City Commission and the allottees. The basic principle applied is that those capital costs incurred on the projects which are ordinarily recovered by NCC through user charges (water sewerage and others) or property rates should be borne by the council and those costs directly related to the development of plots (plots site clearance, material loans and others) to be borne by plot holders. On this basis the total capital costs of the projects are apportioned between the two parties. Table 3-10 shows the allocation costs on a percentage basis for the whole project. This table shows that in certain cases the allottees bear 100% of the cost as in material loans, in which case they are not subsidised. Subsidies exist in those costs shared between the allottees and the NCC. The subsidy amount being the share of the cost borne by NCC which would have ordinarily been borne by the allottees if the project components were not subsidised.



TABLE 3-10 DANDORA PHASE I AND II COSTS ALLOCATION

	Nairobi City Council Allottees	
1. <u>Site preparation</u>	10%	90%
2. <u>On-site infrastructure</u>		
primary roads	75%	25%
Secondary roads	-	100%
Water reticulation	-	100%
Street lighting	30%	70%
3. <u>Community facilities</u>	100%	-
4. <u>Core units</u>	-	100%
5. <u>Material loans</u>	-	100%
6. <u>Trunk infrastructure</u>	100%	-
7. <u>Design and engineering</u> (relating to costs borne by NCC)	100%	-
8. <u>Administration</u> (relating to costs borne by NCC)	20%	80%
9. <u>Interest during construction of wetcores</u>	100%	-
10. Insurance on plots	-	100%

Source: HDD Finance Department. January 1987.

The total percentage of the subsidy amount for Dandora Phase I and II is as shown below.

TABLE 3-11 DANDORA PHASE I AND II TOTAL PROJECT SUBSIDY

Projects Components (Items)	NCC K£	Allotees K£	Total K£
Site preparation	10,810	107,640	118,450
On-site infrastructure	539,820	537,520	1,077,340
Core-units	-	1,528,200	1,528,200
Technical Assistance	690,695	56,255	746,200
Physical contingencies	414,080	172,930	587,010
<b>Total</b>	<b>1,655,405</b>	<b>2,402,545</b>	<b>4,057,950</b>

Extract from appendix 3-3

$$\begin{aligned}
 \text{Total cost} &= 4,057,950 \\
 \text{Ratio of subsidy} &= \frac{(1,655,405 \times 100)}{4,057,950} \\
 &= 40.8\%
 \end{aligned}$$

If the costs of the trunk infrastructure and the community facilities borne by NCC is added, the ratio of the subsidy rises.

NCC	=	K£ 1,655,405
Trunk infrastructure	=	K£ 2,163,150
Community facilities	=	K£ 392,435
Total	=	<u>K£ 4,210,990</u>

The total cost of the project = (4,057,950 + 2,163,150 + 392,435) = K£ 6,613,535

The ratio of the subsidy will be:-

$$\frac{(4,210,990 \times 100)\%}{6,613,535} = 70\%$$

If the above subsidy ratio for the Dandora project is compared to the ratio of subsidy for the Umoja Phase II project<sup>11</sup> where the calculated subsidy ratio is 27.7%, the amount of subsidy to Dandora allottees is large.

The distinction between on-site and off-site infrastructure is useful for deriving appropriate costs sharing and financial measures for urban development projects. On-site infrastructural costs are associated with the development (capital improvements) within a given area, that is, streets, street lighting, water supply, sewerage and electricity connections, land allocated within the project area for public uses, interest and maintenance expenditure during the construction phase of the project. Off-site

infrastructure includes similar facilities as on-site except that costs/benefits may accrue to the community at large<sup>12</sup>. In the Dandora project, the provision of some components of on-site infrastructure were subsidised as show by Table 3-12 below.

TABLE 3-12 DANDORA PHASE II COST ALLOCATION

On-site infrastructure	Allottees	NCC		Total costs
		User fees Charges	Community Facilities	
Surface water drainage	2,035,212	3,021,113	-	5,035,212
Primary road drainage	1,335,488	3,905,172	333872	5,564,532
Secondary roads drainage	3,709,688	-	-	3,709,688
Sewerage works	4,179,218	-	1044805	5,224,023
Street lighting	842,023	451,197	210539	1,503,991
<b>Total</b>	<b>12,080,728</b>	<b>7,367,482</b>	<b>1,589,236</b>	<b>21,037,446</b>

Source: Finance Department HDD.

Of the on-site infrastructure, secondary roads and drainage are not subsidised as the total cost is Kshs. 3,709,688 borne by the allottees. However, the rest are subsidised. The subsidy amount is the sum of user fees, charges and community facilities borne by NCC which should ordinarily be borne by the allottees. Therefore, the total subsidy amount on

on-site infrastructure to the allottees of Phase II areas 2 and 3 is Ksh.8,956,718. In this case, the subsidy ratio on this is 42% of the total cost.

The user fees/charges on on-site infrastructure above which have been borne by NCC, are theoretically based on the benefit principle and affect only those who really avail themselves of the service or benefits provided. Although NCC does not benefit from the on-site infrastructure in Dandora, it meets these charges as part of the assistance to the Dandora allottees. The role of user-charges in financing urban services varies a great deal from one country to another, one point in time to another, and even from one project to another. In part this may be due to differing responsibilities at the local government level, different methods of financing, for example in some urban places certain services such as water supply may be financed through user charges whereas others are financed through property taxation or relative levels of underpricing and administrative efficiency<sup>13</sup>.

The technical assistance given to the Dandora allottees includes the following<sup>14</sup>:

- a) Assistance in the selection of the building plan
- b) Assistance in securing and hiring of skilled and unskilled labour
- c) Advise in utilising financial and other resources
- d) Assessment of construction work for the purpose of drawing materials loans
- e) Assistance in drawing and utilising of materials loans
- f) Assistance in ensuring that construction was done according to the approved plans.

The result of this technical assistance is to cheapen the overall costs of housing since the allottees are not paying for these services. In the Dandora Project, the assistance is provided through an IDK/IBRD loan to the Kenya government. Funds are disbursed to NCC by the government upon request. From table 3-10 it is evident that the allottees pay only 7.5% of the cost of technical services while the NCC meeting the rest.

The allottees of the Dandora Project had to meet the following charges:-

- i) The principal and interest repayment on the plot loan.

- ii) 5% risk reserve
- iii) 1% collection charge
- iv) Land rent a 90% per 100 square metre per annum (estimated)
- v) Rates - 48% per 100 square metre per annum (estimated)
- vi) Downpayment - Kshs.400
- vii) Type plan charge - Kshs.40
- viii) Water standing charge - Kshs.8 per month
- vix) Sewerage standing charge - Kshs.8.50 per month
- x) Dustbin charge - Kshs. 4.50 per month
- xi) Water deposit - Kshs.150 per month.

The mean monthly cost of land rent is Kshs.9. The land on which the project was built was publicly owned. Appendices 3-7 and 3-8 show the various ways in which costs were calculated. These costs were based either on area, number of plots or lots.

The type 'C' plots in Dandora were sold at the market for cross-subsidization of type 'A' and 'B' plots. The finance department in Dandora Housing Development Department calculated the total amount of profits from sale of type C plots as shown below:-

Profits on sale of type C plots = Total number of type C plots in the whole project multiplied by the cost of type C plots.

= Ksh. (246 x 3,002,856)

= Ksh. 73,870,208.

The Ksh.73,870,208 was to be shared between allottees of type A and B plots.

The procedures followed in determining the capital costs of the plots was as outlined below:-

- a) Identify the plot type and area of plot
- b) Multiply the respective development cost per square metre by plot area
- c) Add the cost based on the number of plots
- d) Add contingencies at 5% of a-c above  
(this caters for the allottees not asked for insurance).

The allottees of type A and B got plot loans repayable over 30 years (type A) and 20 years (type B) at 8.5% interest rate. This rate was lower than the market rate of interest which was 12-13%. Some of the allottees are still paying the loan at 8.5% rate; although the current rate is 14%. Hence an interest subsidy on the plot loans exists. The amounts of loans to be repaid by the allottees are based on above interest rate of 8.5% and the repayment periods are as shown in appendices 3-4 and 3-5. A grace period of 5 years on the principal existed during which the allottees could settle in the project.



The objective of the materials loans was for the allottees to use the loan for self-help construction of dwellings to a maximum of 2 rooms (type A) and 1 room (type B). The materials loans were to be given in instalments as follows<sup>15</sup>:-

- 1) First instalment (at the preliminary stage) is made to those allottees who the project development officials felt that they were ready to build. Specifically this meant that:
  - a) Allottees should have obtained a plan prepared by the technical section for a fee of Kshs.40.
  - b) He/she should have set out the plan on ground
  - c) and have dug trenches for 2 rooms in case of Type A and 1 room for Type B plots
  - d) Preferably he/she should have some building materials deposited on the site.
- 2) Second instalment of Kshs. 600 for each room under construction to allottees who have reached the plinth level.
- 3) Third instalment of Kshs.1,200 for each room under construction to allottees who have built walls upto roof level.

4) Last instalment of Ksh.600 for each room under construction is made when the structure is completed.

For type A, the materials loans had to be paid at 8.5% interest over 30 years and for type B over 20 years. Type B allottees had to repay on both principal and interest while type A on interest only for a grace period of 5 years. The interest accrued during the development period of 18 months on any materials loans borrowed is capitalised. The method of administering the materials loans scheme thus amounts to retrospective financing since the allottees are reimbursed for materials initially bought from their own individual and/or borrowed funds.

In the revolving or welfare funds which were started in 1980 subsidies are found in that the allottees repay the loans advanced to them with no interest rates. The sources of these funds are from donor groups. Examples of these donors being the Catholic Secretariat, Ford Foundation, Holy Ghost Fathers, and others. This is an in-kind transfer of money to the allottees who despite the materials loans have been unable to put up the required 2 rooms. These funds are said to be revolving in that after repayment of this money by one allottee, it is given to the next needy allottee. The social workers go

to the various plots to identify the allottees who have not put up the required 2 rooms or have not completed their construction. The allottees are then called for an interview in HDD offices so as to establish their needs, how much they require and whether or not they are able to repay the money. From those interviewed, the ones in most need are then advanced the money. The maximum amount that has been given so far was Kshs. 10,000 per allottee. This is given on a reimbursement basis that is, depending on how far the allottee has built using the first instalment. This reduces the chances of misuse of funds.

During the construction period, the allottees are not expected to repay the loan. It is repaid after the completion of the 2 rooms. Normally, the allottees are expected to pay Ksh.100 per month, or more. The welfare revolving fund gives small-interest free loans run separately from the loans from the World Bank. For example, the revolving fund is equal to 2% of the NCC loan fund to Phase I<sup>16</sup>. While still a small proportion of the total finance is mobilized, it nevertheless constitutes an important contribution to the lowest income groups in site and service schemes. For details of loans given see Appendix 3-6.

Under the Second Urban Project, the World Bank has provided room loans to the allottees in Dandora who have not completed construction of the initial kitchen and one room<sup>17</sup> (these are those who have not benefitted from the welfare fund). The loans are advanced in accordance with the stages of construction as shown in Table 3-13.

TABLE 3-13 DANDORA ROOM LOANS

Stage	First Room Kshs.	Second Room Kshs.	Total Ksh.
Floor	1,500	1,500	3,000
Walls	2,500	2,500	5,000
Roofing	2,200	2,200	4,400
Finishes	800	800	1,600
Total	7,000	7,000	14,00

Source: Status Report 1st Quarter 1985. p.9.

These loans are advanced on reimbursement basis as in the welfare funds. By the end of 1985, the number of allottees who had received the loans were 154 with total advances of Ksh. 369,450,00<sup>18</sup>. The room loans contain an interest subsidy as they are repaid at 8.5% interest rate per annum.

The subsidies identified in Dandora site and service scheme include the subsidies in site preparation, on-site infrastructure, technical assistance, physical contingencies, administration costs, material loans, room loans and in the welfare revolving funds. Therefore, in Dandora both direct and indirect subsidies are in existence. The direct subsidies including those based on the cost of the project as in site preparation, on-site infrastructure and others. The money from the revolving fund which is an inkind transfer of money is also a direct subsidy. Indirect subsidies are delivered through interest subsidies in material loans, plot loans and room loans. The various subsidies in Dandora were given so that the targetted allottees, who were low income groups earning between Kshs. 280-650 per month would be able to afford buying the plots and in developing them. If such assistance was absent, the purchase of the plots and the cost of construction would have been high making the plots to be affordable only by the high and middle income groups.

#### Conclusion

From the evaluation of the subsidy programs in Kenya, it is shown that the principal forms of subsidies are those in public housing programs, employer housing, and owner occupier housing. Within

these principal forms other forms are found. As in public housing programs, the forms in existence are local authority rental housing and tenant-purchase schemes. In owner occupier housing programs, the forms of subsidy existing are owner occupiers tax exemptions, staff mortgage schemes, housing bonds and site and service schemes.

In the above programs, the various forms of subsidies, subsidy amounts, target groups and other related factors were discussed. It is evident from the analysis that most forms of subsidies in existence benefit the owner occupiers more than the tenants. There is discrimination in the amounts of subsidies delivered to the various income groups. Of all subsidied programs in Kenya (in this study), it is only the Dandora project that was specifically designed for the low income groups. The residents of the Dandora project were interviewed to find out to what extent the subsidy reached the target group, the benefits and effects of such a scheme to its residents, and other issues related to the appropriateness of subsidies delivered through site and service schemes to the low income groups. It is from the field analysis in chapter four that the above issues will be addressed and hopefully answered.

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CHAPTER FOUR  
CASE STUDY  
Introduction

In the previous chapter the various subsidy programs in Nairobi were analysed. However, the recipients of these schemes were not interviewed so as to verify the implication of the subsidy. In this chapter, the effects of subsidies for the urban poor are hoped to be derived from the field survey analysis. In a few projects meant for low income groups, a leakage of benefits has been found to the middle and high income groups. From the analysis of the field data, it will be possible to find out if this is the case in Phase II area II of Dandora. To assess the effectiveness of any scheme be it subsidised or not, it is important to find out if the objectives on which it was based have been fulfilled. The objectives for the Dandora project are presented in the next section. Furthermore, the allocation of the plots determines to what extent the target groups benefit from such a scheme.

Squatter upgrading and site and service approaches have emerged during the last two decades as the most widely adopted methods for the improvement of existing slums and squatter settlements and provision of low cost housing. Low cost housing is defined as housing which the low income groups can afford,

that is, which does not exceed 25% of one's monthly income to build or to buy<sup>1</sup>. In chapter one of this study, site and service and squatter upgrading schemes have been defined. In any upgrading scheme it is recommended that most structures should be retained and families should be given opportunities to improve their structures.

In site and service schemes the site may be the only component provided with infrastructural services as in the cases of Kayole and Mathare North in Nairobi. In others, a wetcore is built which the allottees are to expand using the materials loans given as in Dandora project discussed in chapter three. The site and service approach is a specific method of providing aided self-help. It received increased recognition in the 1974-78 development plan<sup>2</sup> as a realistic approach to meet the residential needs of a significant portion of the urban population. These two approaches are significant in the provision of low cost housing to the urban poor who form about 62.25% of the urban population. They do not enjoy subsidies through employer housing or owner occupier housing as they have low incomes of the ranges of Ksh.0-2,000 per month and the majority of them are unemployed or in the informal sector. Those in formal sector are in most cases not subsidised as the employers

concentrate on the middle and high income groups in their establishments. This is evident from chapter three under the subsidies in employer housing.

In site and service projects subsidies may or may not exist. In Dandora, the subsidies that exist as discussed in chapter three include subsidies in site preparation, infrastructural facilities, technical assistance, plot loans, material loans, room loans and revolving funds (welfare funds).

#### Objectives

The housing development department (HDD) was created in 1978 as it was recognized that efficient implementation would require a high level of authority both to make the necessary decisions and to attract qualified staff to ensure efficient implementation of the objectives in this project. The HDD had to meet the following objectives<sup>3</sup> as outlined in the project agreement between the relevant agencies

a) To prepare and service 6,000 residential plots of 100 - 160 m<sup>2</sup> each, with individual water and sewerage connections, access to roads, security, street lighting and refuse collection services at an estimated total cost of Kshs.211,000,000.

b) To construct the following wetcores and demonstration houses for the service plots:-

- i) Option A: 3870 plots with wet cores (toilet and shower) on plot sizes of 100, 120, and 140m<sup>2</sup> at an estimated capital cost ranging from Ksh. 6200-7100 per plot.
- ii) Option B. 1800 plots with wet cores and 1 kitchen and store on plot sizes 100, 120 and 140m<sup>2</sup> at an estimated capital costs ranging from Ksh. 9800-10,600 per plot.
- iii) Option C. 300 plots with wet cores, kitchen, store and 1 room on 160m<sup>2</sup> plots at an estimated cost of Ksh.16,500 per plot and 30 demonstration houses to illustrate housing for option A and B plots. The option C plots were sold at market prices.

c) To operate and administer a materials loans fund amounting to Ksh. 30,000,000 to enable plot tenants for options A and B to borrow appropriate amounts for building materials required to expand such plots to have 2 rooms through self-help contracting.

d) To construct communal facilities including 6 primary schools, 2 health centres, with day care facilities, 1 sports complex and 400 market stalls. The capital cost of these facilities was estimated at Kshs. 7.9 million to be recovered through user charges and site value rates.

e) To construct trunk access roads to the project site, the capital costs estimated at Ksh.22.9 million to be recovered through annual site value rates from the users.

f) To ensure impartiality in the selection of prospective plot tenants, who must meet at least the following eligibility requirements.

- i) The total income at the time of application of the applicant and his household to be between Ksh.200 and Ksh.500 per month for option A plots and Kshs. 450 and Ksh.650 per month for option B plots.
- ii) Prospective allottees to have lived in Nairobi for at least 2 years immediately prior to his application for a plot and not own any other residential property in Nairobi.

- iii) Allottees family (spouse, if any), or children at the time of application and upon allocation of the plot have to reside with allottee in the project.
- iv) Prospective allottees to pay NCC the appropriate fees for sewerage and water connection, deposit of Ksh. 400 within 60 days of notification that they have been allocated a plot.

It was essential that each allottee paid a small deposit of Ksh. 400 for the reasons outlined below:-

- 1) It gives a sense of commitment to the allottees
- 2) It acts as a security for council to advance initial materials loan of the same amount to allottees without any valuation.
- 3) Provides cash flow for council to pay debt charges to the government during the construction of the project.
- 4) Helps to recover some of the monthly charges owned by the evicted allottees who cannot be traced especially in the first six months of the allotment.

### Allocation

In 1976, 16,018 applications were processed for the 6,000 plots in the first half of the year. 9,308 of these were determined eligible according to the set criteria. It was required by the project agreement that all applications returned for consideration must be properly vetted and applicants interviewed in an effort to ensure that plots went to the target group. By use of computer, ballot positions were established for the eligible applicants for the 6,000 plots leaving the rest of the qualified applicants on reserve lists. Phase I allottees started moving on-site by November 1976. 54 type C plots in Phase I were sold at 28,000/= each to cross-subsidise type A plots<sup>4</sup>.

Orientation meetings for allottees were held so that HDD could:-

- a) Explain clearly to the allottees about the project
- b) Their personal participation
- c) Department's role and
- d) The allottees responsibility to the project<sup>5</sup>.

The repossessed plots of defaulting allottees were sold in the open market to the highest bidders in keeping with the approved procedure of such repossessed plots. The allottees who failed to take up their offers for a period of 10 months had their plots allocated to the next allottees in the waiting list with an understanding that whenever the former came they would be allocated alternative plots<sup>6</sup>. The above allocation was conducted in such a way that only the targetted group of incomes of Kshs. 280-650 per month were the beneficiaries of the Dandora project.

#### Field survey analysis

The field survey was undertaken on the residents of Dandora Phase II area II. A sample of 10% of the plots was taken for this field survey. Of the 180 plots surveyed, about 19.4% had the landlords living on the plots while the other 80.6% were living elsewhere. (The sampled plots shown in Appendix 4-1 were the ones occupied only by tenants). The breakdown of the plots in survey was 58.3% Type A, 34.5% Type B and 7.2% Type C. To show the differences in rents, incomes and other characteristics of the allottees since the owners of these plots were supposed to be those within the income ranges of Kshs.280-650 per month, it was necessary to undertake the survey of 7.2% Type C plots as this had been sold in the market so as to compare



the rents, incomes of the tenants, size of households with that of those in Type A and B plots which had been subsidised.

### Type C Plots

The room numbers in Type C plots range from 5 rooms to 15 rooms. This is because the owners had money and since they had bought the plots at the market, they wanted to maximise their profits by building more rooms which they could let out. Of the Type C plots surveyed all had absentee landlords. 15.4% were storeyed, while the others were generally built of better materials and of varying plans than those that had originally been intended. This is a clear indication that the owners of Type C plots had enough funds to construct their buildings in one stage rather than the stage by stage building for Type A and B plots. One example of the plans that were supposed to be used for Type C plots is shown in Appendix 4-1. The rents charged for Type C plots are as shown in Table 4-1.

TABLE 4-1 RENTS OF TYPE C UNITS

Rent per month Kshs.	Number of Tenants	Percentage Rents
Less than 100	-	-
100 - 200	1	7.7
201 - 300	3	23.0
301 - 400	5	38.5
401 - 500	2	15.4
501 - 600	2	15.4
over 1000	-	-
Total	13	100%

Source: Field Survey December 1986

Although type C plots had more rooms than type A and B, there is no relationship between the number of rooms and rents charged. Most of the rooms are going for rents of Kshs. 301-400 per month, as shown in Table 4-1.

TABLE 4-2 INCOMES OF TENANTS OF TYPE C PLOTS

Amount per month Kshs.	Number of tenants	Percentage
100 - 500	-	-
501 - 1,000	1	7.6
1,001 - 1,500	5	38.5
1,501 - 2,500	5	38.5
Over-2,500	2	15.4

Source: Field Survey, December 1986

About 77% of type C tenants had incomes of between Kshs. 1,000 and 2,500 per month. Therefore, these tenants could comfortably afford the rents charged for these rooms/house.

Analysis of Type A and B residents

From the allocation procedure, it is clear that some landlords were allocated the repossessed plots. These are the landlords who got the plots after 1981. However, these could be the landlords who bought the plots from the initial allottees and therefore may not necessarily be the target group. This can only be verified by their incomes and by knowing from whom they got the plots.

TABLE 4-3 DATE OF ALLOCATION OF DANDORA PLOTS

Year	Number of landlords	Percentage %
1979	17	48.6
1980	9	25.7
1981	5	14.3
1982	1	2.85
1983	1	2.85
1984	1	2.85
1985	1	2.85

Source: Field Survey December 1986

From the above table those who got the plots after the official allocation are 11.4%. The sale of the plots to other individuals is usually not reported to the HDD. 8.6% of the landlords said that they bought the plots from individuals while the rest got them from NCC through HDD. From the data collected from the HDD office, no reports were given of these sale. Therefore it would be difficult to verify which landlords were not within the target group.

However, as regards the former places of their residence, 40% had formally lived in Mathare and Kariobangi while the remaining 60% had lived in other, squatter and slum areas. 75% of the landlords had been tenants in their former places of residence, while 8.6% had been landlords, 11.6% had lived with friends and relatives and the other 4.8% had been squatters. Therefore, the 44.8% who had lived in Mathare, Kariobangi and the other squatter and slum areas benefitted from the Dandora Scheme since in Dandora there is better and improved shelter. The 8.6% who had been landlords are questionable since in the objectives of this project, the allottees who qualified had to be those who did not own any other residence in Nairobi. The 70% of the landlords who had been tenants before coming to live in Dandora had been paying the rents shown in Table 4.4 below.

TABLE 4-4 LANDLORDS RENT IN FORMER PLACES OF RESIDENCE

Rent per month Kshs	Number of landlords	Percentage
Below 100	9	36
100 - 200	7	28
201 - 300	4	16
301 - 400	1	4
401 - 500	2	8
Over 500	2	8
Total	35	100%

Source: Field Survey December 1986

The majority of the landlords, about 80% had paid rents of upto Ksh. 300 per month in their former places of residence and only 8% had paid over Ksh. 500 per month. Those 8% could be the untargetted group since the maximum incomes for one to qualify had been Kshs. 650 per month and it would have been unlikely that a household with an income of Ksh.650 would afford to pay rents of Ksh. 500 per month and at the same time meet other basic requirements with the balance of only Ksh.150.

Most of the tenants have moved to Dandora after 1983. It took the targetted landlords sometime before they could construct more rooms for rentals. This explains why the tenants occupied their present units after 1983. The former residence of the tenants shows that 50% had lived in Dandora before occupying present houses. 34% of the rest had lived in other low income areas in Nairobi while the other 5% had lived in middle income areas such as Buru Buru, Ngara, Doonholm and others. However, 10% of the tenants had come from other towns.

78% of the tenants had rented accommodation before occupying the present rooms, 20.6% had been living with friends or relatives while 1.4% had been squatters or housed by the employers. Table 4-5 shows the rents tenants paid in their former places

of residence vis-a-vis the present rents. From Table 4-5 about 65% of the tenants had paid rents of upto Ksh. 300, while at present 57.6% pay rents of upto Ksh. 300 shown in Table 4-6.

TABLE 4-5 TENANTS' RENTS IN FORMER PLACES OF RESIDENCE

Rent Ksh. p.m.	No. of Tenants	Percentage
Less 100	2	1.5
100 - 200	32	24.3
201 - 300	52	39.4
301 - 400	22	16.7
401 - 500	7	5.3
501 - 600	10	7.6
Over 1000	4	3.0
No rent	3	2.2
Total	132	100%

Source: Field Survey December 1986

TABLE 4-6 TENANTS' PRESENT RENTS

Rent Ksh. p.m.	No. of Tenants	Percentage
Less 100	-	
101 - 200	20	15.2
201 - 300	56	42.4
301 - 400	46	34.8
401 - 500	7	5.3
501 - 1000	-	-
Over 1000	-	-
No Rent	3	2.3
Total	132	100%

Source: Field Survey December 1986

At the time the tenants moved to present houses 16.2% were paying rents of Ksh. 101-200, 50.8%, 201-300, 28.3% 301 - 400 and 4.5% rents of Ksh. 400 - 500.

This shows that rents had increased as there are more tenants 6.7% paying Ksh. 301-400 and 0.8% paying 401 - 500 than before, 13% of the tenants moved to present houses due to lower rents, 8.2% due to convenience to place of work, 4.8% due to improved infrastructural facilities and services and 2% due to availability of community facilities. The other 72%



had moved to present plots for various reasons. The reasons included were size of rooms, privacy, security reasons and to be near friends and relatives.

55.2% of the tenants paid rent that included water charges, 4.1% paid electricity separately from rent while 4.8% pay water separately. The other 35.9% paid rent only while the landlord paid the water and electricity charges. Table 4-7 shows the percentage of tenants' opinion of rents paid.

TABLE 4-7 TENANTS' OPINION OF RENTS

Opinion	No. of Tenants	Percentage
Too high	14	10.6
High	68	51.5
Fair	44	33.4
Others	6	4.5
Total	132	100%

Source: Field Survey December 1986.

Therefore the majority of the tenants find the rents they pay in Area II to be high. This shows that 62.1% of tenants are dissatisfied with the rents they pay while the other 37.9% find the rents to be fair. The

rents paid in Dandora were high although the landlords had been subsidised. This is because of the high demand for such rooms for the low income groups in Nairobi.

The maximum amount of rent that a household can pay reasonably should not be more than 25% of one's income. In Table 4-8 below, the tenants' incomes are shown and the calculated rents that they should be paying assuming that the maximum rent paid should be 25% of the monthly income.

TABLE 4-8 TENANTS' SALARIES AND RENTS TO BE PAID PER MONTH

Salary per month Ksh.	No. of tenants	Percentage	Rents at 25% Ksh.
100 - 500	13	9.8	25 - 125
501 - 1000	52	39.4	125 - 250
1001 - 1500	45	34.1	250 - 375
1501 - 2500	19	14.4	375 - 625
Over 2500	3	2.3	625 and over

Source: Field Survey December 1986.

In calculation of rents to be paid, the lowest and the highest amounts are used. From Table 4-8, the tenants with salaries of between Kshs.1000-1500 per month are the ones who can afford to pay, the other 49.2% with the income range of Kshs. 100-1000 per month use more than 25% of their incomes for rents since the rents in most plots in Dandora are over Kshs.250 per month. The other 16.7% with incomes of Kshs.1500 and over, use less than 25% of their incomes on rents. However, 15.9% of tenant households have additional sources of income which make it easier for them in paying the high rents. Therefore, although the landlords in Dandora have been subsidised, they still charge market rents (same as rent charged in other unsubsidised housing units in Nairobi).

The landlords had incomes ranging from Kshs. 500-2500 per month. The sources of income include; the salaries of household heads, income from subletting and from other sources. Table 4-9 below illustrates this.

TABLE 4-9 LANDLORDS MONTHLY INCOMES

Amount per Month Ksh.	Salary		Rental Income		Other Sources	
	No.	%	No.	%	No.	%
100-500	0	-	3	10.7	4	23.5
501-1000	8	22.8	17	60.7	4	23.5
1001-1500	10	28.6	8	28.6	4	23.5
1501-2500	9	25.7	-	-	2	11.9
Over 2500	5	14.3	-	-	-	-
Unpaid	3	8.6	-	-	3	17.6
Total	35	100%	28	100%	17	100%

The unpaid include those unemployed and retired. From Table 4-9, 77.1% of the landlords have salaries of Ksh. 501-2500 per month. The 14.3% with salaries of over Ksh. 2500 per month do not belong to the low income group defined in this study as those within the income range of Ksh. 0-2000 per month. Furthermore 89.3% of the landlords receive a monthly income of between Ksh. 500-1500 from subletting. When the incomes from salaries, subletting and other sources are added, the landlords' incomes will be found to be over Ksh. 2,000 per month. Due to the scheme, some landlords have been able to start informal businesses as in food kiosks, carpentry and others which have increased their monthly incomes.

From Table 4-8, the tenant households receive higher salaries than the landlords. This is shown by the fact that 73.5% of tenants have salaries of between Ksh. 501-1500 per month; while the proportion of landlords in the same income scale is 41.4%. This is because the tenants did not have to belong to the initial income ranges of Ksh. 280-650 per month. Furthermore, some of the landlords could have misstated their incomes so as to fit naturally into the levels that had been set.

### Household characteristics

This part presents the details regarding the characteristics of households in Type A and B plots. Included here is the size of the household, occupations of head of household, and other household characteristics. One of the allocation criteria was for the Dandora allottees at the time of allocation to have been living in Nairobi with their families. From the field survey, the landlord households are larger than those for the tenants, the average household sizes for landlords and tenants are 7 and 6 persons per household respectively.

In 1986, 45% of landlord households had 5 persons or more which is slightly more than at the time of allocation. In 1978<sup>7</sup> in Phase I, the average household size was 4.5 persons although the number of single person beneficiary households was 14.2% in Phase II in 1986 as opposed to 22% in Phase I. This could be explained by the fact that most of the dependants at the time of allocation, have gone to live on their own. Table 4-10 below shows the landlords and tenants household sizes.

TABLE 4-10 LANDLORD AND TENANT HOUSEHOLD SIZE

Household size	Tenants	Percentage	Landlords	Percentage
1 - 3	64	48.5	11	31.4
4 - 6	48	36.4	6	17.1
7 - 9	15	11.4	14	40
Over 10	5	3.7	4	11.5

Source: Field Survey December 1986

Therefore about 84.9% of the tenants household has upto 6 persons per household while 48.5% of landlord households have upto 6 persons and 40% 7-9 persons per household while tenants have 11.4%.

Most of the landlord and tenant head of households are found within informal occupations. This forms 81.8% of the tenants and 51.4% of the landlords in informal occupations. Therefore most of the Dandora residents are in informal occupation. From Table 4-11 there are more landlords who are unemployed and retired, forming 11.4% as opposed to that of tenants, which is 3%. This is because the tenants incomes are not considered as long as they can pay their rents.

TABLE 4-11 OCCUPATION OF TENANTS AND LANDLORDS

Occupation	Landlord	%	Tenant	%
Formal	13	37.2	20	15.2
Informal	18	51.4	108	81.8
Unemployed or retired	4	11.4	4	3
Total	35	100	132	100

Source: Field Survey December 1986

Target groups

The targetted allottees were to be those with monthly incomes of Kshs. 280-650 per month. From the landlords incomes in Table 4-9, only about 22.8% had incomes of upto Ksh. 1000 per month. If the assumption is that their incomes have not increased, in the last six years of their occupation of the Dandora plots, then it is only the 22.8 % who are in the formerly targetted income group. Furthermore, some allottees may not have given the correct incomes at the time of plot allocation.

From the rents paid by the landlords in the former places of residence shown in Table 4-4, it is clear who were the target groups assuming in those former places they had paid maximum rents which were 25% of their incomes. Thus from Table 4-4, it is only 64% of the landlords who were the target group. These could have only afforded rents of upto Ksh. 200 per month. The date of allocation of plots to landlords is another indication of the target groups. The area II plots had been allocated upto 1981. Therefore, those who occupied and were allocated the plots after 1982 may not belong to the target groups. Furthermore, these transactions were between former allottees and new allottees and were not reported to HDD. Thus from Table 4-3, 8.55% allottees occupied their plots after 1982 and thus it can be assumed that some of these were not the targetted group. 8.57% of the landlords had bought the plots from individuals while the other 91.4% had been allocated plots by NCC. It is from the 8.5% of the landlords that one may find landlords not in the target group.

The last indicator of whether the landlords were the targetted ones is from the tenant survey. Of the interviewed tenants, 99% were of the opinion that plot ownership had not



changed since they pay rents to the same person. However, this is not a conclusive indicator since some tenants had lived in the plots for less than two years and in other cases, it is the agents of the landlords who receive the rents. Furthermore, it was difficult for the tenants to know whether their landlords were the original ones or not.

Table 4-12 shows the places of the residence of the absent landlords as given by tenants. There was however no way of counter-checking the places given.

TABLE 4-12 PRESENT RESIDENCE OF ABSENT LANDLORDS

Place of residence	No. of Landlords	Percentage
Dandora	10	7.5
Rural areas	39	29.5
Other low income areas	21	15.9
Middle income areas	34	25.8
Not known	28	21.2
Total	132	100%

Source: Field Survey 1986 December

7.6% of landlords lived in Dandora, but not in their plots. These could be landlords in their places of residence but acting as agents of absent landlords not living in Dandora. However, they could be those who own more than one plot since it is unlikely that one could let out all rooms in his plot and become a tenant in the same area but in a different plot. 29.9% of the landlords in the rural area could have been the untargetted group as in the allocation criteria, its those who had lived in Nairobi and were going to live in their plots that were allocated the plots; or else they could have accumulated enough money from subletting or retired and chosen to go back to settle in their rural areas. The 28.8% landlords living in middle income areas could be those who had gotten plots through misstating their incomes, or bought them from original allottees and hence may not be the target group. There could be a few who have gone to these middle income areas to live with relatives so as to be able to sublet all the rooms in their plots for maximum profits.

The conclusions drawn from Table 4-12 may not be accurate since it is based on the tenants knowledge of the residences of their landlords. As an example, some of the 28.8% landlords in middle income areas could be relatives or friends of the landlords acting as their agents in cases where the landlords no longer live in Nairobi.

From the daily newspapers, Dandora plots are often advertised for sale. These plots are sold at market prices to those who can afford. Hence the landlords living in the middle income areas could have bought the plots in the market and hence they are not the target groups.

#### Sources of finance, extensions and improvements

For the initial deposit for the plots, 71% of the landlords used their personal savings while the other 29% used loans from friends, relatives and employers. Loans from friends varied from Ksh.100-1000. The mode of repayment was as per agreement between the various parties involved. The allottees generally found what they initially paid to be reasonable given the fact that they were given plots and loans to build later. At the time of the interview, there were no outstanding loan amounts which were unpaid.

The landlords got material loans as outlined earlier in this chapter. Although, they found the amounts given at various stages not enough for construction, this went along way in assisting them in plot consolidation. However, 2.85% found that the NCC took long in advancing the loans to them which resulted in delays in construction. 42.9% of the landlords found the material loans to be a satisfactory way of financing since they had no other sources of funds and were not in a position to get loans from elsewhere.

All the landlords interviewed had used the loans for extensions and improvements of the houses. Table 4-13 shows the rate of improvements and extensions at the time of the field survey. Some of the type plans to be used are found in Appendix 4-2 and 4-3.

TABLE 4-13 EXTENSIONS AND IMPROVEMENTS

Extensions No. of rooms	No. Extended	%	Improvements	No.	%
1 room	6	17.1	Painting	14	40
2 rooms	17	48.6	Fence	18	51.4
3 rooms	6	17.1	Gate	17	48.6
4 rooms	5	14.3	Electricity	4	2.9
5 rooms	1	2.9	Floor Finish	1	11.4
Kitchen	4	11.4	Plastering water	1	17.1

Source: Field Survey December 1986

Kitchens were extended together with other rooms. Some improvements were combined, such as fencing and fixing of gates, painting and plastering and others. This resulted in the total percentages in Table 4-13 amounting to more than 100%.

The sources of finance for the extensions and improvements varied. 61.43% from cooperative loans and 30% from personal savings. Furthermore, money got from room loans and welfare revolving fund were used.

In the plots occupied by tenants, only 37.2% of the tenants said that improvements and extensions had been undertaken while they were living in the plots. For the other 62.8% no improvements and extensions had been undertaken since they occupied their present rooms. This may be explained by the fact that about 70% of the tenants interviewed had occupied the plots after 1985. In those plots that extensions or improvements had been undertaken, 22% of the tenants had their rents raised due to the improvements and the extensions. The increment ranged from Ksh. 10 to 150 per month per room. Despite the increase in rents, the tenants favoured the improvements on their plots.

### Building Groups

These are registered societies with about 10-20 members. Community development workers in HDD encouraged beneficiaries to form self-help building groups since this was the only way in which the poorest groups who had no other sources of incomes or loans could build. In phase I, there were 14 building groups with a standard contribution of Ksh. 50 or 100 for the members<sup>8</sup>. In the study area, only 22.8% had joined the building groups. The requirements, performance and changes introduced so as to make these building groups operations to be successful are as found in the formal and informal sources of finance of a site and service scheme<sup>9</sup>. All the landlords interviewed, who had joined the building groups were no longer members. Some had benefitted while others left after they realised that their groups or others in Dandora were mismanaged.

### Conclusion

From the data analysed, it can be assumed that there has been an impact on living standards of Dandora residents due to the subsidy. This will be discussed in next chapter on findings from the field survey. The landlords who are selling their plots now are getting upto Ksh. 150,000 for a 8 roomed plot, and

Kshs. 95,000 for a 4 roomed plot<sup>10</sup>. It is difficult to know the number of the allottees who sold their plots. This is because, the buyer is required to pay for the outstanding loan amount if it was during the grace period, the allottees were officially not allowed to sell their plots. Therefore, buyers and allottees come into legal contracts in sale in the presence of a lawyer. The buyer keeps quiet until the outstanding loan is paid or the grace period is over. It is at this time when the buyer may choose to notify the HDD officials that he is the new owner. In most cases they do not even bother to report.

Some plots which were designed for residential purposes have been converted to commercial use such as bars, boarding and lodging, hotels, shops and other activities. This is clear because they are not situated in areas set aside for commercial premises.

FOOTNOTES

1. Jorgensen, N.O., Housing Finance for Low Income groups with special reference to developing countries. HRDU, University of Nairobi, 1977. pg.15.
2. Republic of Kenya, Development Plan 1974-79. Government Printer, Nairobi Kenya.
3. Geoffrey K. Payne, Low income housing in the developing world. The role of site and services and squatter upgrading. John Wiley and Sons. 1984 pg.21.
4. Isaac Wanjohi, Annual Report 1976, Dandora, (HDD) Nairobi, 1977, pg. 3.
5. Ibid., pg. 11.
6. Gilbert Njau, Annual Report 1981, Dandora. (HDD) Nairobi 1982, pg.5.
7. Mazingira Institute, Formal and informal financing in a sites and service project in Kenya for UNCHS (Habitat) Nairobi, 1983 pg 47-49
8. Ibid., pg. 36.
9. Ibid., pg. 37.
10. Daily Nation, December 1986.



## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### Main findings

In this final chapter, the main findings of the study are discussed. The implications of the findings are described in relation to the generally accepted view of removal of minimising of subsidies in housing. It is on the basis of this, that some recommendations are made and areas for further research identified.

The success of any housing subsidy program depends mainly on the form in which the subsidy is delivered, its administration and on a clear definition of the target group. This is evident from the literature reviewed. The programs which are successful in benefitting the low income groups are the ones delivered through co-operatives e.g. Tamil Nadu, India and socialist countries, through squatter upgrading and site and service programs. These programs have been successful to a large extent due to proper administration. This involves assessing the beneficiaries needs and ability to pay; such that each received subsidy amounts commensurate to one's needs and income, e.g. Helwan Squatter upgrading program in Egypt.

The subsidies in the Nigeria Government land - servicing programs for the urban housing development benefitted the high income groups, those with political connections and the administrators of the program. This was as a result of having not clearly identified and defined the target groups in the above programs.

In both developed and developing countries the tax relief programs almost exclusively benefits the owner occupiers who are usually the middle and high income groups. This intensifies inequality in housing standards. The houses for the high and middle income groups being of high standard compared to that of low income earners. Furthermore, the owner occupier subsidy increases with the households income or with increases in the house prices. The owner occupiers generally receive greater amounts of subsidies than the tenants.

The principal forms of subsidies in Kenya are found in employer housing, public rental schemes, owner occupier programs and site and service schemes. From this study, the existing forms of subsidizing housing have been found to benefit the high and middle income groups more than the low income groups. This therefore, proves the hypothesis of this study to be correct. There are more subsidies for the high and middle income groups than for the low income groups. In addition, the subsidised projects meant for the low income groups benefit the other groups as well through leakages. In Dandora, the study established that about 8.56 of the surveyed plots were owned by people outside the target groups. Although specific figures cannot be given, it is

clear that some of the allottees of the Dandora project have been priced out of their plots by middle and high income groups. One of the reason advanced for this being that the target allottees are unable to develop their plots despite the materials loans and technical assistance given. Out of the sample considered, the study produced evidence that the allottees had other priorities than that of being landlords and hence chose to sell the plots as a means of income generation. They had other needs and hence sold their plots so that they could use the money mainly for subsistence, clothing and education. A few of the landlords resold their plots and went back to the squatter settlements and shanty areas in the environs of the study area.

In the subsidised programs meant for middle and high income earners, the study established that discrimination exists in the amounts and distribution of subsidy given to the employees in the same job grade and between different tenures. As an example, in employer housing programs, employees of the same job group occupying the same size of house in the same locations have been found to receive different amounts of subsidies. These differences may be due to the units in question having been constructed at

different times, or leased from different lessors. Staff in higher job grades receive greater subsidies than those in lower grades in the same establishments housed by their employees. For example, the senior civil servants living in government housing receive as much as 59.5% subsidy while those in lower scales receive as low as 18%. Furthermore, employees housed by employers were found to receive lower amounts of subsidies than their contemporaries in the same job groups who are owner occupiers.

From the field survey, it is evident that only a small percentage of the low income urban poor benefitted from the subsidies given in Dandora. It is only in 20% of the surveyed plots that the landlords were found to be living in their plots. In the other 80%, the plots were wholly occupied by tenants. In such a scheme, only a few people can be given ownership of the plots while the rest who are the majority become tenants. Furthermore not all the plots originally meant for the target groups were allocated to them. This is because the repossessed plots were sold to others at market rates and therefore open to other income brackets. This decreased the number of beneficiaries of the low income cadre in the scheme.

The study brings out the fact that the living standards of the landlords both in occupation of their plots and those who sold the plots have been raised due to the project. The landlords who sold their plots did so at the market prices. They made 'profits' in that they had only paid relatively low sums of money as deposits but sold the plots at the current market prices. The landlords still in Dandora have additional monthly incomes from subletting which they did not have before. They save on rents, they would have paid if they were still in their former places of residence before moving to Dandora. The monthly rents per room in Dandora is on average between Kshs. 200 and 300. This is the same amount of rent currently charged for rooms in other low income housing estates not subsidised. It would be expected that the rents in Dandora would be lower since the landlords are subsidised. This however is not the case due to the existing high demand coupled with a limited supply of such units for the low income groups who form about 69.17% of the total urban population in Kenya.

It can therefore be concluded that the Dandora landlords benefitted from this project at the expense of the subsidising authorities and the tenants. Furthermore, untargetted landlords do so at the expense of the original allottees in addition to that of tenants and subsidising authority. The various subsidies to the landlords made it possible for the few landlords in the target group to be the proud owners of property which they otherwise would not have afforded without the subsidy. They have more disposable income from subletting; money saved

from rents and from the "informal businesses" they started in Dandora. Most of the landlords can now spend more money on other basic necessities than they did before.

The materials loans given to the allottees in instalments went a long way in making it possible for the allottees to construct their units. They got a loan which they would not qualify for from the existing conventional financial agencies. Furthermore, this loan was to be repaid at a lower interest rate which made the loan amount to be repaid less than it would have been with the current rates which range from 14 to 19%. Despite the above, the landlords felt that the loan amount was not adequate and was advanced with a lot of delays. In Phase II, the first allottees began construction in 1980. The materials loans given for one room for type B plots was Kshs.3,200 and for type A plots Kshs.6,400 for one room and a kitchen. However, in 1980 it costed about Ksh. 11,000 to build one room<sup>1</sup>. Therefore, the materials loans were not adequate. The building supervisors had to inspect the work done by the allottees before more loans could be advanced. There were few supervisors and hence it took long for them to inspect the progress of most of the allottees. This resulted in delays in getting loans to continue construction. The delays

not only affected the rate of construction but also the cost of construction since prices of materials and labour kept on rising.

From the survey, it was found out that the mode of advertising used for Dandora plots was not at the time absolutely effective. 75% of the interviewed landlords had learnt of the project through friends and barazas (meetings with chiefs and village elders), 15% through the daily newspapers and the other 10% through the radio. In the recent low income projects such as Kayole and Mathare North in Nairobi, there have been more applicants for these plots. For example, in Mathare North, there were about 50,000 applicants for only 1,500 plots. The Mathare North plots were advertised in more or less the same way as Dandora. Although there are perhaps more urban dwellers than then, it can be concluded from the above that the public is more aware of the benefits of such projects than before. It is however suggested that more meetings should be held with the public in low income areas to explain about these projects. It is at this initial stage that they can be made aware of the long term benefits of these schemes and the problems the successful allottees are likely to encounter.

An inbuilt stability resulted due to the Dandora project which raised the allottees welfare. They were induced to join self-help building groups and start small block-making industries with loans from the welfare (revolving) funds. Those who had no businesses before they came to Dandora started informal ones, e.g. carpentry, motor-mechanics, food kiosks, vegetable selling and others. This resulted in income generation and hence a start towards the betterment of the people's welfare.

Due to the project, the original landlords do not belong to the target group any more. In chapter four it was realised that 14.3% of the landlords have monthly salaries of over Kshs. 2,500 per month. They no longer belong to the targetted low income brackets. The plots allocated to landlords provided a basis for fulfilment of their goals based on current data. This is why most of them choose to live elsewhere especially return to the rural areas (29.5%). It is only 11.4% of the landlords who were satisfied with their plots. Of the remaining 88.6%, 42.8% preferred being given a loan to buy land in places of their choice and to build their own houses using plans and materials of their own choice. This shows that these allottees were not satisfied with the plans and materials they were expected to use in Dandora.



The subsidy in the materials loan, room loans and from the revolving fund facilitates the rate of house consolidation. The rate of consolidation of plots in Dandora was faster than would have been without the subsidies.

Although the tenants pay market rents due to the high demand for such rooms by the urban poor coupled with a limited supply of the units, they have benefitted from the subsidised project in that they have improved infrastructural facilities, community facilities and social amenities. Such facilities may be lacking in other low-cost housing projects. However, there is congestion and over use of the above facilities because the landlords have built many rooms which are let to individual households. The landlords living elsewhere do not maintain their plots. This was clear from the comparison of the plots which were solely occupied by the tenants with those occupied by the landlords, either wholly or partly.

The initial objective of the Dandora project for type A and B allottees was to increase the housing stock affordable by the low income groups. However, some plots have been solely turned to commercial use defeating the original intention. Some of these are the type C plots or the repossessed plots sold to others than the target groups. The others are

the ones which were sold by the original allottees to the high and middle income groups who wanted to make maximum profits from the plots by converting them for commercial uses.

#### Administration problems in Dandora

From the data collected from HDD it was obvious that problems associated with the administration affected the success of the project. For any project to be successful in meeting all the objectives on which it was based, it should be managed and administered in such a way so as to meet the objectives. The procedural problems<sup>2</sup> relating to the approval of the plans reflected some lack of appreciation for the very low cost housing schemes that the urban poor can afford. The overall layout plans and house plans were not approved by some departments of the council. These departments had strongly maintained that the design standards do not conform to the planning and building code and the public health act and therefore resulted in delays in the issuing of type plans to the plot allottees. Due to the delay 1977-1980, the average annual rate of inflation in Kenya was 12%, the price of the building materials rose annually at an annual rate of 16%. This resulted in an increase in the overall construction costs of as much as 14% per year. The HDD had estimated the

monthly charges of Phase II plots to rise over those of Phase I by 30% due to the increases in material prices, labour costs and in changes in the sewerage way leave design.

During the process of issuing identification<sup>3</sup> cards and keys, it was discovered that some allottees had given false information on the application forms. Further verification confirmed that these allottees did not meet the allocation criteria. Furthermore, although most of the sublease agreements<sup>4</sup> were ready by 1984, only awaiting execution by the commission, most allottees refused to go for them despite repeated calls to them by HDD officials. This is a clear indication that the allottees could have resold their plots and did not want to be discovered.

The allottees have changed the original plans shown in appendices 4-2 and 4-3 by building on spaces that had been left for air circulation in the plots. This has prevented cross-ventilation and further resulted in congestion. Those landlords who have built storeyed houses have not only altered the plans and increased congestion of the facilities provided in the project, but also have left out wc/showers which has resulted in health hazards due to too many people using what was designed for upto five households.

HDD encounters problems with allottees who have converted their plots for commercial purposes. The World Bank had given loans so as to assist low income groups to get accommodation in projects with community facilities not for commercial purposes. This defeats the original objectives of such a scheme. Furthermore, an area had been set aside for commercial activities which was being used for the same.

#### Recommendations

From the Dandora project it was obvious that although the site and service projects can be a reality and a visible fact, they only benefit a small percentage of the lucky low income groups, the landlords. If the subsidy for the low income groups is to benefit most of them, it must be given in such a way so as to benefit the majority of this group. In site and service schemes only a few of the urban poor population can be landlords. Hence, given that there can be no projects of such a size so that all the low income groups become landlords, alternative strategies should be devised which would cater for the majority who are tenants. It would therefore be more effective if local authorities and other actors in house delivery systems put up more units solely for rentals at low rents that can be afforded by the low income

groups. This strategy may call for increased central government subsidization of local authorities expenses incurred specifically on housing aimed at benefitting the urban poor. The site and service project plots sold at market prices for cross-subsidisation, of the low income groups should be allocated a site away from the site meant for the low income groups so that it can be clear in the low income projects if the plots have been resold by observing the type of houses put up. In site and service projects, these market sale plots keep on increasing from one project to another. As an example, in Dandora Phase I there were only 5% while in Phase II there were 20% and in the Kayole site and service projects in Nairobi under the second urban projects, there are 25%. This shows that more and more plots are being sold to those who can afford to buy plots elsewhere instead of being restricted to the low income groups most affected by the housing shortage. Furthermore in Dandora, repossessed or unclaimed plots originally meant for the low income groups should not be sold in the market as this increases the numbers of the middle and high income groups benefitting from the projects. These repossessed plots should be allocated to other allottees in the waiting lists

whose conditions have not changed at all since the first application.

The delays in implementation and thus in the allocation of site and service projects should be minimised so as to avoid the escalating building prices and inflation rates from adversely affecting the allottees. To make the low income groups afford to develop their plots using the material loans, the loans usually given in stages should be given in such a way as to avoid long time lags between the stages. The building supervisors should make sure that they are able to have updated records on the progress of the allottees constructing using these loans so that as soon as one stage is completed the money is advanced for the next stage. This will limit the delays and the eventual increase in building costs which increases with time. Those who administer the loans should work out the current amount of money needed to complete a room. Due to the time lag between the various stages, the amounts should be adjusted often so as to take into account the increases in prices of materials and labour. Use of low cost (local) materials and skills of construction in low cost housing schemes be they subsidised or not, would lower the cost of construction and make it more affordable.

In Dandora, the use of local materials and skills would have gone a long way in enabling the allottees to consolidate their plots since the material loans given would have been adequate for purchase of local materials. The Housing Research and Development Unit of the University of Nairobi has undertaken research work on local materials. Their findings would go along way in making it possible for such schemes to be successful given the limited existing funds. The scaling down of the levels of standards and amenities in a subsidised scheme such as Dandora would mean the allottees' burden of repaying the loan is minimal (given smaller loans) and hence the resale of their plots would be unlikely. The subsidising authority would have more funds for further replicability of projects for the low income groups. This would be possible only if the areas in which low income projects are situated are zoned so as to apply the Grade II by-laws, and if the aid/donor agencies, local authorities and financiers allowed the use of such standards, materials etc.

The housing subsidies should continue to be used as a policy tool to assist the lowest of low income groups in gaining access to adequate and affordable housing. It may however be minimised for the middle and high income groups since even without the subsidies such groups can afford to buy, rent or

build decent housing. It is therefore the considered opinion of this study that the general trend towards removal or minimising the subsidies in housing held by the international aid agencies such as the World Bank, USAID, HABITAT and others, and also held by the government should be reviewed. Doing away with subsidies for all income groups would mean that the low income groups would continue to live in informal housing. It is the opinion of the author of this study that housing subsidies for the low income groups should in fact be increased as long as they are channelled in such a way so as to only benefit them and not the other income groups. This should be achieved by having more subsidised projects specifically meant for the urban low income groups.

The most effective form of subsidies would be delivered through building co-operatives as long as the co-operatives are well managed. It was found out from the Tamil Nadu housing project in India, and the socialist countries such as Yugoslavia that if subsidies are delivered through an apex co-operative organisation, it reaches the low income groups without a leakage of benefits to the middle and high income groups. In Kenya, subsidies can be delivered through National Association of Cooperative Housing Union (NACHU) which in turn can distribute them to other



co-operatives under its umbrella. This would benefit the low income groups in these cooperatives.

Individual subsidies would go along way in solving the housing problems for the low income groups were it possible for them to use this money or grants for housing. However, the preferences of some of low income households conflict with the housing objectives and thus if they were to be given cash grants, they would use the money for other basic needs as housing is a merit good. The other effective form would be lower rent charged for the low income groups in the subsidised scheme. This would only be possible if there was no surplus demand for low income housing in Kenya. However, since this is the case, more rental units going for low rents should be a solution towards housing most of the 69.25% urban poor. The rents not being more than 25% of the tenants monthly income.

The employers should be advised to minimise subsidies for their high and middle income employees but channel them to the lower income groups, in their establishments. The owner occupiers in Kenya receive a large amount (deep) subsidies as compared to the other groups. For example, if two officers in the same job

group are compared, one being an owner occupier and the other a tenant, the owner occupier will be found to receive a higher owner occupier allowance than the house allowance for the tenants. The owner occupiers receive subsidies in the form of tax relief on mortgage interest or in subsidised schemes such as housing bonds not enjoyed by the tenants. The house allowance should be given after evaluating the kind of house such an officer should be occupying. In most cases the house allowance after taxation is so low that most tenants have to add some money from their salaries, if they are to live in certain class of houses.

The administration of the subsidised projects for the urban poor should be planned in such a way that the housing needs and preferences of the occupants are taken into consideration. There should be no uniform subsidy for the low income groups but each case should be judged against such factors as the households incomes, family sizes, other basic needs etc. so as to be able to assess how much should be given to them and how much they can afford to repay without too much stress which may lead to rampant resale of plots.

Areas for further research

Though this study was mainly concerned with subsidies for the urban poor, it became apparent in the course of the analysis that other areas related to national housing strategy need to be addressed. The areas evident from the study that should be explored include among others an examination of subsidies in squatter upgrading schemes in Kenya. In these, the various issues related to subsidizing the low income groups can be brought out, to show how effective subsidies can be delivered through a squatter upgrading strategy with a view to comparing this with those in the site and service schemes.

Some landlords in Dandora sold their plots or sublet their rooms and went to live in other areas. It would be interesting to investigate the cause of this as this would enable planners, policy makers and other actors in the low income programs to come up with ways and means of arresting this situation.

The success of any housing project depends on its administration. It would contribute a lot towards the housing policy if procedures and guidelines were produced to be adopted for effective administration of subsidised low income housing projects in urban areas. Perhaps a study in this direction would be most appropriate. The above three areas, would clear the way for those bent on discouraging the use of subsidies as a tool for increased housing production for low income groups by clearly bringing out the benefits of such a policy towards addressing the ever existing urban housing shortage.

FOOTNOTES

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APPENDIX 1 - 1

The questionnaire administered on officials of various establishments.

1. What are the establishments terms, policies or regulations towards housing its employees?
2. Is there any assistance given to would be owner occupiers?
3. What are the requirements for owner occupier allowance?
4. What is the basis for calculating the enhanced house allowance and loan repayment by the owner occupiers?
5. What is the contribution of the owner occupier, mode of repayment, repayment period, interest rates, grace periods and other issues related to repayment of the loan?
6. What is the establishment's housing allowance structure for both owner occupiers and renters? (ceiling figures)
7. Give a few examples of staff housed by the establishment giving a few cases in each job grade and areas in which they are housed (and the market rent if known).
8. What are the establishments owner occupiers policy guidelines?
9. Is there any assistance given to those in private rented accommodation?

APPENDIX 1 - 2

LANDLORD

1. Plot Number .....
  2. Plot size .....
  3. Room(s) sizes .....
  4. Date of allocation .....
  5. Number of households on the plot .....
  6. Former place of residence .....
- Were you a tenant or owner occupier?
- Tenant ..... Owner Occupier .....
7. If tenant, what was the rent per month?  
Kshs. ....
  8. What were your reasons for moving here ?
    - (a) To be owner occupier in a subsidised low cost housing scheme .....
    - (b) Convenience to place of work .....
    - (c) Better terms of credit .....
    - (d) Improved infrastructural facilities and services .....
    - (e) Availability of community facilities  
.....
    - (f) Others (specify) .....

9. How did you know of this scheme?

- (a) Through people (friends) .....
- (b) Through newspaper .....
- (c) Through radio .....
- (d) Others (specify) .....
- .....

10. How long have you lived here?

- (a) Less than 1 year .....
- (b) 1 - 5 years .....
- (c) Over 5 years .....

11. From whom did you buy or get the plot?

- (a) Purchased it from an individual .....
- (b) Allocated by NCC .....
- (c) Others (specify) .....
- .....
- .....

12. Did you find what you paid to be reasonable?

Yes/No

- (ii) Give reasons for above answer .....
- .....
- .....
- .....

13. How much did you pay for the following?

	Amount (Kshs)
(a) Land	.....
(b) Building (wc, kitchen, 1 room)	.....
(c) Materials	.....
(d) Others	.....
.....	.....
.....	.....
.....	.....

14. Did you get a loan for any of the above? Yes/No

(ii) If yes

	Loan amount	Grace period	Repayment period	Interest	Down payment
(a) Land					
(b) Building					
(c) Materials					
(d) Others	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

(iii) What is the outstanding loan Ksh. ....

15. What was the stage of development at the time of allocation/purchase?

(a) Site only	.....
(b) Site and services	.....
(c) Site, services and kitchen	.....
(d) Site, services, 1 room	.....

- (e) Site, services, 1 room and kitchen .....
- (f) Others (specify) .....  
.....  
.....

16. What was the source of your initial deposit (purchase)?

Source	Amount (Ksh.)
(a) Personal savings	.....
(b) Bank loan (specify)	.....
(c) Loan from friends/relatives	.....
(d) Loan from employers	.....
(f) Loan from cooperatives society or savings and credit society	.....
(e) Others (specify) .....	.....

(ii) What were the terms of the loan?  
.....  
.....  
.....

17. (i) Was this method of financing satisfactory?  
Yes/No

(ii) Give reasons for above answer .....  
.....  
.....  
.....

18. (i) Have you joined any cooperative society or building group? Yes/No

(ii) If yes, which one .....  
.....

19. (i) What were the requirements for one to be a member?

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

(ii) What do you pay/contribute per month?

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

20. (i) What are the activities that the cooperative or building group is involved in?

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

(ii) What is your opinion of the cooperative or building group?

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

21. (i) Have you undertaken any improvements or extensions on the plot? Yes/No

(ii) If yes, what are they?

	<u>Extensions</u>	<u>17 sublet, Rent per month</u>
(a)	1 room	.....
(b)	2 rooms	.....
(c)	3 rooms	.....
(d)	4 rooms	.....
(e)	kitchen	.....
(f)	Others .....	.....
	.....	.....
	.....	.....

Improvements

.....  
.....

22. What was the source of finance for the extensions/ improvements? Kshs.

(a)	NCC	.....
(b)	Cooperative loan	.....
(c)	Bank loan (specify)	.....
(d)	Personal savings	.....
(e)	Loan from employer	.....
(f)	Loan from friends/relatives	.....
(g)	Others (specify) .....	.....
	.....	.....
	.....	.....

23. What were the sources of labour?

- (a) Hired .....
  - (b) Family and friends .....
  - (c) Self-help group/building group .....
  - (d) Contractor built .....
  - (e) Others .....
  - .....
  - .....
- (ii) If hired, how much did it cost to build  
1 room? Kshs .....

24. What is the size of your household?

	Male	Female
Adults		
Children		
(ii) What is the occupation of the head of the household? .....		
.....		
(iii) What is his/her salary per month?		
a) Kshs. 100-500 .....		
b) Kshs. 501-1,000 .....		
c) Kshs. 1,001-1,500 .....		
d) Kshs. 1,501-2,500 .....		
e) Over 2,500 .....		



25. How many other members of the household work?

Salary per month (Kshs.)

- a) Wife .....
- b) Son(s)/Daughter(s) .....
- c) Relatives .....
- d) Others (specify) .....
- .....

26. Are there any other sources of income?

Yes/No

(ii) If yes, what are they?

Source	Amount per month (Kshs.)
.....	.....
.....	.....
.....	.....

27. Are you satisfied with this house as a place to live in? Yes/No

(ii) Give reasons for above answer .....

.....

.....

.....

28. Are you aware that those who bought the plots in Phase 'I, Type C plots paid more than you? Yes/No

(ii) If Yes, what are your comments on this?

.....

.....

.....

29. Would you prefer to be,

- a) Owner occupier in this area .....
- b) Housed by your employer .....
- c) Rent a city council house .....
- d) Given a loan to buy land to  
build a house (rural or urban) .....
- e) Given a loan to purchase an  
already built house .....
- f) Others (specify) .....

(ii) Give reasons for above answer .....

.....

.....

.....

.....

30. What are your future plans on housing?

- a) Extend the present house .....
- b) Improve the house/plot .....
- c) Own another house .....
- (Where?) .....
- d) Move from Dandora .....
- e) Others (specify) .....

.....

31. Give general remarks on Dandora Site and Service  
Scheme .....

.....

.....

APPENDIX 1 - 3

TENANT

1. Plot Number .....
2. Plot size .....
3. Room(s) sizes .....  
.....  
.....
4. Date of occupation .....
5. Former place of residence .....
6. In the former place of residence, were you a  
tenant or owner occupier?  
Tenant .....  
Owner Ocucrier .....
7. If tenant, what was the rent per month?  
.....
8. What were your reasons for moving here?
  - a) Rents were lower .....
  - b) Convenience to place of work .....
  - c) Improved infrastructural facilities and  
services .....
  - d) Availability of community facilities  
.....
  - e) Others (specify) .....  
.....  
.....

9. How long have you lived here?

- a) Less than 1 year .....
- b) 1 - 5 years .....
- c) More than 5 years .....

10. (i) What was the rent per month when you moved here? Kshs. ....

(ii) What is the rent now per month? Kshs. ....

11. Does your rent include

- a) Water charges .....
- b) Electricity charges .....
- c) Garbage collection .....
- d) Others (specify) .....
- .....
- .....
- .....

12. What is your opinion on the rent charged?

- a) Too high .....
- b) High .....
- c) Fair .....
- d) Others (specify) .....
- .....
- .....
- .....

13. Would it be better to be a tenant or owner occupier?

Tenant .....

Owner Occupier .....

14. Give reasons for the above answer .....

.....

.....

.....

.....

15. What is the size of your household?

Male

Female

Adults

Children

16. What is the occupation of the head of the household? .....

17. What is his salary per month?

a) Kshs. 100-500 .....

b) Kshs. 501-1,000 .....

c) Kshs. 1,000-1,500 .....

d) Kshs. 1,501-2,500 .....

e) Over 2,500 .....

18. (i) How many other members of the household work?

	Amount per month
a) Wife	.....
b) Son(s)/daughter(s)	.....
c) Relatives	.....
d) Others (specify)	.....
.....	.....
.....	.....
.....	.....

19. Are there any other sources of income?

Yes/No

20. If yes, what are they and how much is got from each source:

Source	Amount per month
.....	.....
.....	.....
.....	.....
.....	.....

21. (i) Has ownership fo the plot changed since you moved here? Yes/No

(ii) If yes, how many times?

a) Once	.....
b) Twice	.....
c) Others (specify)	.....
.....	.....

22. (i) Would you know the reasons for the above?  
Yes/No

(ii) What are they?  
.....  
.....  
.....

23. (i) Does the landlord live in the plot?  
Yes/No

(ii) If not, where does he live?  
.....  
.....  
.....

24. Do you plan to move to another house in the  
near future? Yes/No

(ii) If Yes, Where? .....

(iii) Give reasons for your choice  
.....  
.....  
.....  
.....

25. Would you prefer to be,

- a) Owner occupier in this area? .....
- b) Housed by your employer? .....
- c) Rent a city council house .....
- d) Given a loan to buy land and build your own house .....
- e) Given a loan to purchase an already built house .....
- f) Others (specify) .....  
.....  
.....  
.....

27. (i) Have any improvements or extensions been carried out by the landlord? Yes/No

(ii) If yes, what are they?

Extensions

- a) 1 room .....
- b) 2 rooms .....
- c) 3 rooms .....
- d) 4 rooms .....
- e) Kitchen .....
- f) Others (specify) .....  
.....  
.....  
.....



(iii) Improvements

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

28. (i) Have the above affected your rent? Yes/No

(ii) If yes, by how much per month Kshs. ....

(iii) What is your opinion on the extensions  
or improvements? .....

.....  
.....

29. (i) Are you aware that this scheme was  
subsidised? Yes/No

(ii) If Yes, What is your opinion of the  
subsidy?

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

(iii) Have you benefitted from this scheme?

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

30. (i) Are you satisfied with this house as a place to live in? Yes/No

(ii) Give reasons for above answer

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

31. Give general remarks on Dandora Site and Service Scheme

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

APPENDIX 3 - 1

HOUSE ALLOWANCE FOR CIVIL SERVANTS

Officers in Job Groups	Maximum House Allowance per month Ksh.
R and above	3,750
Q	3,375
N and P	2,530
L and M	2,080
K	1,655
H and J	1,370
G	970
E and F	715
C and D	535
A and B	
(a) Nairobi and Mombasa Municipality	240
(b) Other Municipalities	180
(c) All other areas	145

Source: Mwaniki and Associates Task Force on housing policy. Ministry of Works, Housing and Physical Planning. Civil Servants Housing study. Nairobi. February 1987 pg. 25.

APPENDIX 3 - 2

HOUSE ALLOWANCE FOR UNIVERSITY OF NAIROBI STAFF

Staff in Job Grade	Maximum house allowance per month Kshs.
Grade 1	450
Grade 2	550
Grade 3	650
Grade 4	750
Grade A and B	1370
Grade C and D	1655
Grade E and F	2080
Tutorial Fellows and Assistant lecturers etc.	2530
Senior Lecturers	3750
Professor and Assoc. Professors	3750

Source: University of Nairobi.  
Estates Department 1987.

APPENDIX 3 - 3

APPRAISAL OF DANDORA SITE AND SERVICE

Category	Total Cost	User Fees and Rates	Community Facilities <sup>1</sup>	Recovery from lots
(1) <u>Site preparation</u>	118,450	1,150	9,660	107,640
a) Clearing/grading	37,950	-	7,590	30,360
b) Topo and soil survey	10,350	-	2,070	8,260
c) Lot demarcation	69,000	-	-	69,000
d) Fencing of power lines	1,150	1,150	-	-
(2) <u>On-site infrastructure</u>	1,077,340	474,225	65,595	537,520
a) Primary Rds/Drainage	397,095	277,965	23,830	95,300
b) Sec, Rds/Drainage	264,730	-	-	264,730
c) Sewerage Reticulation	156,355	-	31,670	126,685
d) Water reticulation	150,650	150,650	-	-
e) Street lighting	65,780	19,735	9,210	36,835
f) Land scaping	11,500	11,500	-	-
g) Refuse collection	23,230	14,375	885	7,970
(3) <u>Community Facilities</u>	392,435	392,435	-	-
(4) <u>Core Units</u>	1,528,200	-	-	1,528,200
a) Wet cores	704,340	-	-	704,340
b) 1 room units	622,800	-	-	622,800
c) 2 room units	179,100	-	-	179,100
d) Demonstration units	21,960	-	-	21,960 <sup>2</sup>
(5) <u>Materials loans funds</u>	144,800	-	-	1,144,800
(6) <u>Trunk Infrastructure</u>	2,163,150	2,163,150	-	-
(7) <u>Technical Assistance</u> <sup>3</sup>	746,950	644,830	45,865	57,255
a) Project unit	348,000	348,000 <sup>4</sup>	-	-
b) Design & Engineering fees	375,950	273,830	45,865	56,255
c) Housing operations	43,000	43,000	-	-
(8) <u>Physical contingences</u> (5-15%)	587,010	383,390	30,690	172,930
SUB TOTAL	7,772,335	4,079,180	151,810	3,541,345
TOTAL COSTS <sup>5</sup>	7,772,335	4,230,990		3,541,345

1 Estimated at 20% of net land area

2 To be resold at market prices

3 Central government will bear the costs of monitoring (K£36,000) and future

4 To be apportioned among beneficiaries at the completion of the NCC Housing Operations Study

5 Excluding price contingencies.

APPENDIX 3- 4

DANDORA PHASE II (AREA 2-5)

TYPE B - 20 YEARS - 8.5% FACTOR 0.05241889 ÷ 6

Cost based on

Area	Plot	Contingency 5% on cost	Down payment	Net Cost	Loan Repayment	Risk Reserve	Collection Cost	Road Maintenance	Total	Rounded- up Total	
88.75	5488.30	10911.20	822.10	400	16821.50	146.95	7.35	1.50	5.00	160.80	161.00
95.92	593.90	10911.20	834.30	400	17277.75	150.95	7.50	1.50	5.00	164.95	165.00
99.23	6136.40	10911.20	853.55	400	17501.15	152.90	7.65	1.55	5.00	167.10	167.00
100.33	6204.40	10911.20	856.95	400	17872.55	153.50	7.65	1.55	5.00	167.70	168.00
105.84	6545.55	10911.20	874.00	400	17930.35	156.65	7.85	1.55	5.00	171.05	171.00
107.00	6616.90	10911.20	877.60	400	18605.70	157.30	7.85	1.55	5.00	171.56	172.00
107.60	6459.55	10911.20	879.75	400	18050.50	157.70	7.90	1.55	5.00	172.15	172.00
108.17	6689.25	10911.20	880.00	400	18080.45	157.95	7.90	1.55	5.00	172.40	172.00
108.19	6749.45	10911.20	881.90	400	18092.96	157.95	7.90	1.55	5.00	172.40	172.00
109.15	6749.85	10911.20	884.25	400	18145.30	158.50	7.90	1.60	5.00	172.95	173.00
110.25	6816.85	10911.20	887.65	400	18216.70	159.15	7.95	1.60	5.00	173.70	174.00
111.21	6877.25	10911.20	890.65	400	18279.10	159.70	8.00	1.60	5.00	174.30	174.00
111.35	6885.90	10911.20	890.10	400	18238.20	159.75	8.00	1.60	5.00	174.35	174.00
113.98	7948.50	10911.20	899.20	400	18453.90	161.05	8.05	1.60	5.00	175.90	176.00
114.01	7050.35	10911.20	899.30	400	18460.85	161.30	8.05	1.60	5.00	175.95	176.00
115.00	7111.60	10911.20	902.30	400	18525.10	161.85	8.10	1.65	5.00	176.60	177.00
115.76	7858.60	10911.20	904.75	400	18474.55	162.25	8.10	1.65	5.00	176.95	177.00
117.58	7271.15	10911.20	910.35	400	18692.70	163.30	8.15	1.65	5.00	178.05	178.00
119.07	7363.30	10911.20	915.00	400	18789.50	164.15	8.20	1.65	5.00	179.00	179.00
119.50	7389.90	10911.20	916.30	400	18819.05	164.50	8.20	1.70	5.00	179.05	179.00
123.48	7636.00	10911.20	928.65	400	19075.85	166.65	8.35	1.70	5.00	181.85	182.00
124.03	7670.00	10911.20	930.35	400	19101.55	166.95	8.35	1.70	5.00	181.95	182.00
126.93	7849.35	10911.20	939.20	400	19299.75	168.60	8.45	1.70	5.00	183.75	184.00
127.89	7908.70	10911.20	942.30	400	19362.20	169.15	8.45	1.70	5.00	184.30	184.00
128.79	7976.75	10911.20	945.60	400	19433.55	169.75	8.50	1.75	5.00	184.95	185.00
132.30	8181.45	10911.20	956.45	400	19649.10	171.65	8.60	1.75	5.00	186.95	187.00
134.51	8318.10	10911.20	957.75	400	19787.05	172.85	8.66	1.75	5.00	188.20	188.00
135.44	8375.60	10911.20	965.65	400	19852.45	173.40	8.65	1.75	5.00	188.75	189.00
138.92	8590.80	10911.20	976.45	400	20088.45	175.40	8.75	1.75	5.00	190.90	191.00
141.12	8726.85	10911.20	983.25	400	20221.30	176.85	8.86	1.75	5.00	192.25	192.00

APPENDIX 3 - 5

DANDORA PHASE II (AREA 2-5)

TYPE A - 30 YEARS - 8.5% FACTOR - 0.04631178 ÷ 6

Cost based on

Area	Plot	Contingency 5% on cost	Down payment	Net Cost	Loan Repayment	Risk Reserve	Collection Cost	Road Maintenance	Total	Rounded up Total	
95.92	5360.10	5799.90	556.25	400	11281.25	87.05	4.75	0.85	5.00	97.25	97.00
98.79	5469.00	5799.90	564.20	400	11448.20	88.35	4.40	0.90	5.00	98.65	99.00
99.23	5493.40	5799.90	565.40	400	11473.40	88.53	4.40	0.90	5.00	98.85	99.00
100.33	5554.25	5799.90	568.50	400	11538.50	89.05	4.45	0.90	5.00	99.40	99.00
101.71	5575.30	5799.90	569.55	400	11560.55	89.25	4.45	0.90	5.00	99.60	100.00
101.89	5640.65	5799.90	572.75	400	11627.75	89.75	4.50	0.90	5.00	100.15	100.00
103.03	5703.75	5799.90	575.95	400	11694.95	90.25	4.50	0.90	5.00	100.65	101.00
104.00	5757.45	5799.90	576.65	400	11749.65	90.70	4.50	0.90	5.00	101.10	101.00
105.33	5831.05	5799.90	582.38	400	11829.35	91.30	4.55	0.90	5.00	101.95	108.00
105.84	5859.30	5799.90	582.75	400	11858.75	91.55	4.55	0.90	5.00	102.00	102.00
106.27	5883.10	5799.90	584.10	400	11866.10	91.60	4.55	0.90	5.00	102.05	102.00
106.83	5914.10	5799.90	586.50	400	11916.95	92.00	4.60	0.90	5.00	102.50	103.00
107.00	5923.50	5799.90	586.95	400	11925.95	92.05	4.60	0.90	5.00	102.55	103.00
107.69	5961.70	5799.90	588.90	400	11966.90	92.35	4.60	0.90	5.00	102.85	103.00
108.17	5988.30	5799.90	590.90	400	12019.10	92.75	4.65	0.95	5.00	103.35	103.00
109.15	6042.55	5799.90	592.95	400	12051.95	93.00	4.65	0.95	5.00	103.60	104.00
109.23	6046.95	5799.90	593.10	400	12055.10	93.05	4.65	0.95	5.00	103.65	104.00
110.25	6103.45	5799.90	596.40	400	12116.00	93.00	4.65	0.95	5.00	104.10	104.00
113.35	6164.35	5799.90	599.05	400	12180.05	94.10	4.70	0.95	5.00	104.75	105.00
112.20	6211.40	5799.90	601.40	400	12229.40	94.40	4.70	0.95	5.00	105.65	105.00
112.63	6235.20	5799.90	602.30	400	12332.30	94.60	4.70	0.95	5.00	108.25	105.00
113.98	6309.95	5799.90	606.70	400	12340.70	95.20	4.75	0.95	5.00	105.90	105.00
114.11	6317.15	5799.90	608.20	400	12372.20	95.25	4.75	0.95	5.00	105.95	106.00
114.66	6347.60	5799.90	609.20	400	12391.10	95.50	4.75	0.95	5.00	106.20	106.00
115.00	6366.40	5799.90	611.25	400	12436.25	95.65	4.80	0.95	5.00	106.40	106.00
115.70	6408.50	5799.90	614.50	400	12504.50	96.00	4.80	0.95	5.00	107.75	107.00
116.92	6472.70	5799.90	614.65	400	12507.65	96.50	4.80	0.95	5.00	107.25	107.00
117.00	6477.10	5799.90	617.40	400	12565.40	96.55	4.85	0.95	5.00	107.30	107.00
118.00	6532.50	5799.90	620.45	400	12629.45	97.00	4.85	0.95	5.00	107.90	108.00
119.07	6591.70	5799.90	620.80	400	1236.80	97.80	4.85	0.95	5.00	108.30	198.00

APPENDIX 3 - 6

HURUMA AND DANDORA WELFARE FUND AS AT 30TH DECEMBER 1980

	1 room	Amount loaned	Average loan per project	2 rooms	Amount loaned	Average loan per project	Total Rooms	Total
Type A rooms completed	5	9,000	9,000	8	13,500	1687.5	13	22,500
Type B rooms completed	3	6,500	6,500	-	-	-	3	6,500
<b>SUB - TOTAL</b>	<b>8</b>	<b>15,500</b>	<b>15,500</b>	<b>8</b>	<b>13,500</b>	<b>-</b>	<b>16</b>	<b>29,000</b>
Type A rooms uncompleted	1	1,500	1,500	4	7,000	1750	5	8,500
Type B rooms uncompleted	1	-	-	-	-	-	1	1,500
<b>SUB - TOTAL</b>	<b>2</b>	<b>1,500</b>	<b>1,500</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>10,000</b>
Huruma Scheme	3	6,700	22,333	-	-	-	3	6,700
Not yet started	1	1,500	1,500	-	-	-	1	1,500
<b>SUB - TOTAL</b>	<b>4</b>	<b>2,050</b>	<b>2,050</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>8,200</b>
Huruma rooms Completed	1	2,000	2,000	-	-	-	-	-
	-	-	-	-	-	-	-	2,000
<b>SUB - TOTAL</b>	<b>1</b>	<b>2,000</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>
<b>TOTAL</b>	<b>15</b>	<b>28,700</b>	<b>-</b>	<b>12</b>	<b>20,500</b>	<b>-</b>	<b>27</b>	<b>49,200</b>



APPENDIX 3 - 7

DANDORA AREA 2 & 3

CALCULATION OF CORE UNITS COST BY LOT

	1738	822	149	
	A	B	C	Total
	Kshs.	Kshs.	Kshs.	Kshs.
Identifiable costs	5571245	5289183	1464062	12324490
<u>ADD</u> Preliminaries	456566	433453	119981	1010000
Fencing	664661	314367	56982	1036000
Schedule of days Worked	64010	60769	16821	141600
Price fluctuation provision	904093	858321	237586	2000000
	<hr/>	<hr/>	<hr/>	<hr/>
	7660576	6956083	1895432	
<u>LESS</u> Adjustments ommission	505665	489065	132884	1118614
	<hr/>	<hr/>	<hr/>	<hr/>
	7154910	6476018	1762648	15393476
Tender sum				15386277
Difference (deduct)	3254	3090	855	7199
	<hr/>	<hr/>	<hr/>	<hr/>
	7151656	6472928	1761683	15386277
Deduct 2½% discount	178791	161823	44043	384657
	<hr/>	<hr/>	<hr/>	<hr/>
Contract Amount	6972865	6311105	1717650	15001620
Plot cost	4012	7677 75	11527 75	5537 70
	<hr/>	<hr/>	<hr/>	<hr/>
	4012	7678	11528	
	=====	=====	=====	

APPENDIX 3 - 8

DANDORA PHASE II

COST STATISTICS

	Cost/m <sup>2</sup>	Interest during construction	Project Admin.	Design & Eng. fees	
<u>Cost Based on area</u>					
Clearing and grading	8.03	0.83	1.39	0.32	10.77
Surface water drainage	3.34	0.34	0.58	0.22	4.48
Primary roads/drainage	3.70	0.38	0.64	0.24	4.96
Secondary Roads/drainage	15.97	1.65	2.78	1.04	21.44
Sewer reticulation	11.48	1.18	2.00	0.75	15.41
Street lighting	3.56	0.39	0.62	0.23	4.73
	46.08	4.75	8.01	3.00	61.84

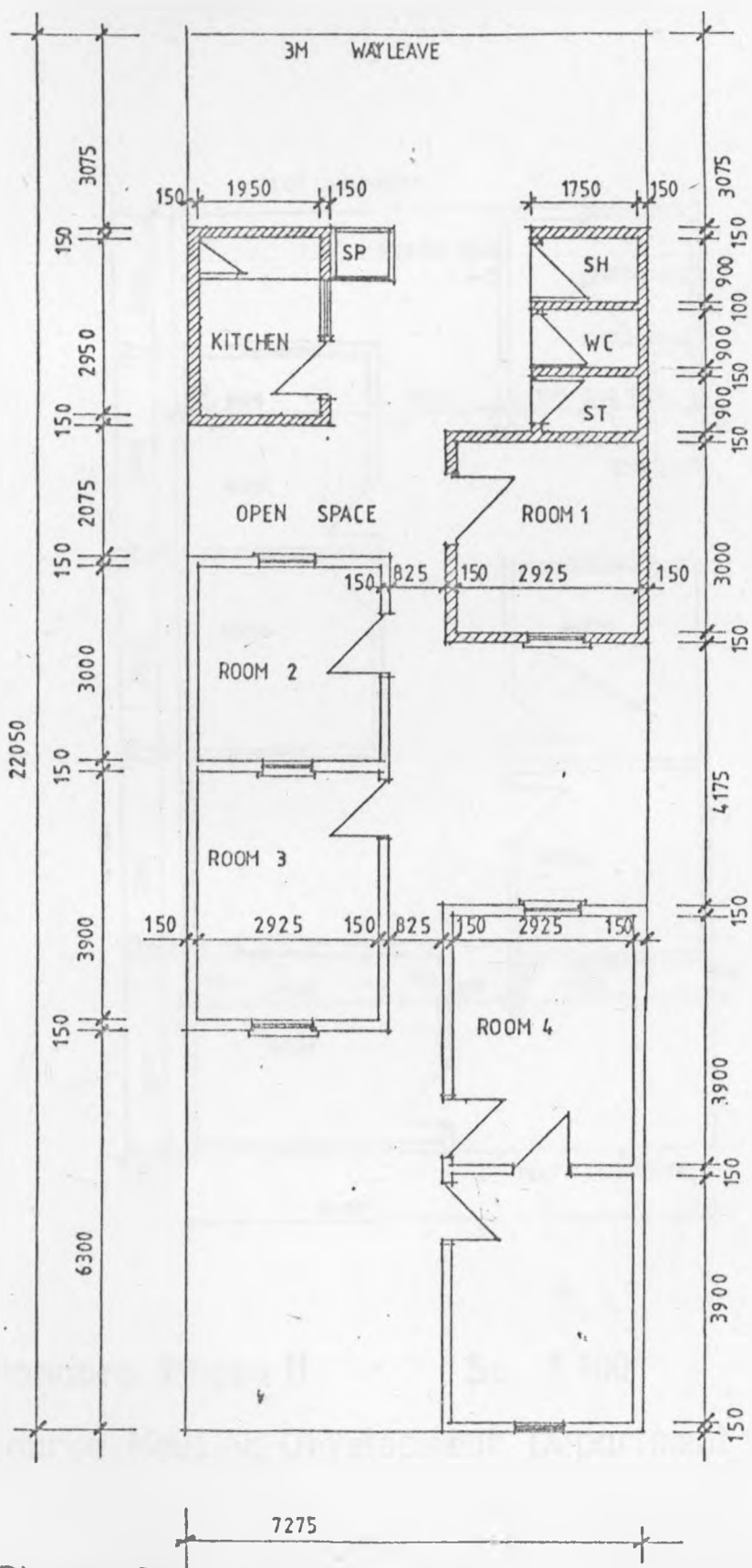
Cost Based on No. of plots

Topo. & soil Survey	34.70	3.60	6.00	-	44.30
Lot demarcation	189.90	19.60	33.00	-	242.50
Water reticulation	200.00	20.60	34.75	-	255.35
	424.60	43.80	78.75		542.15

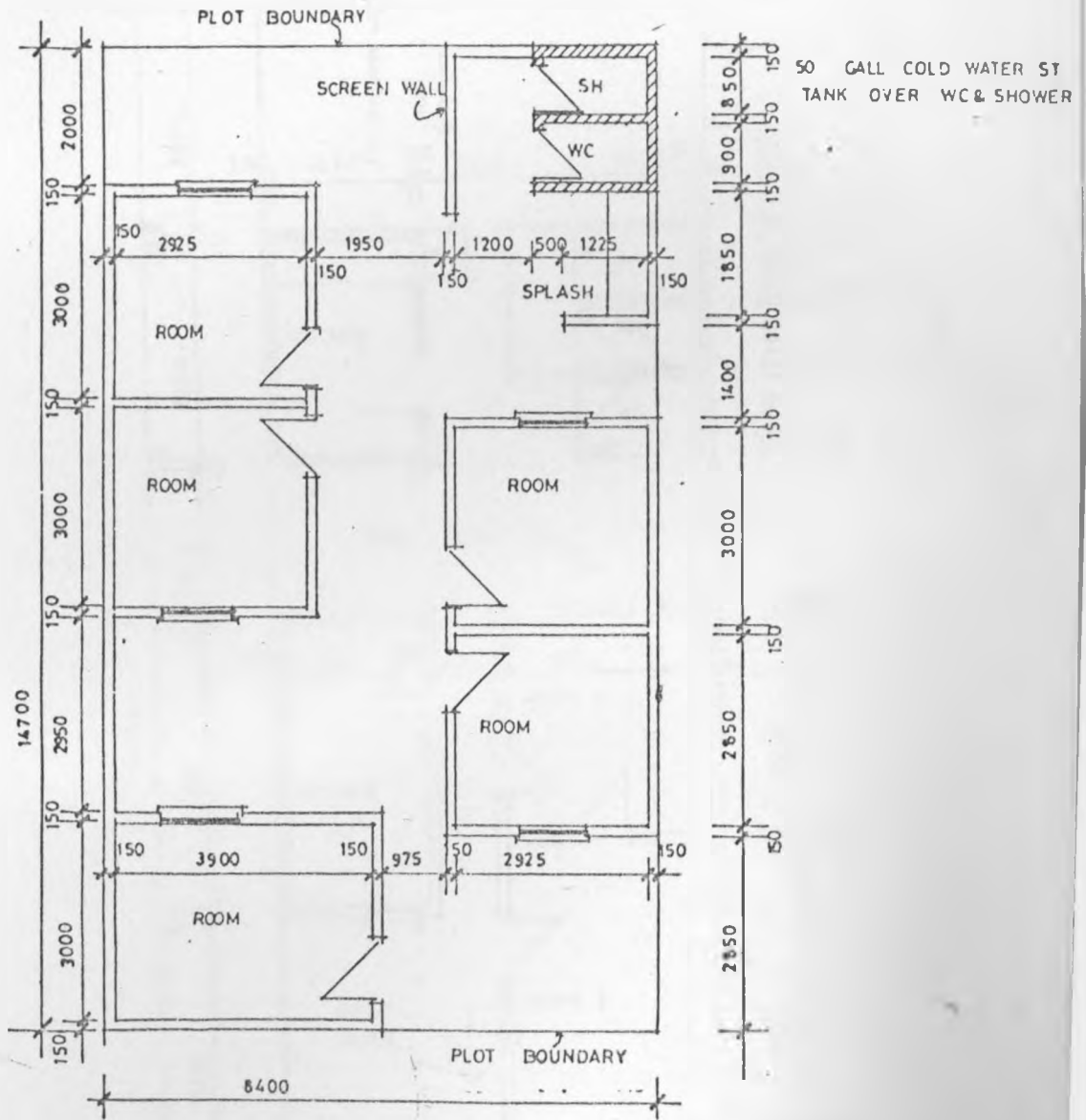
Core unit costs

				Security Expenses	
A	4094.45	422.10	711.20	30.00	5257.75
B	8097.65	834.80	834.80	30.00	10369.05
C	12206.75	1258.45	1258.45	30.00	15615.60

Type plan C.



Type plan A



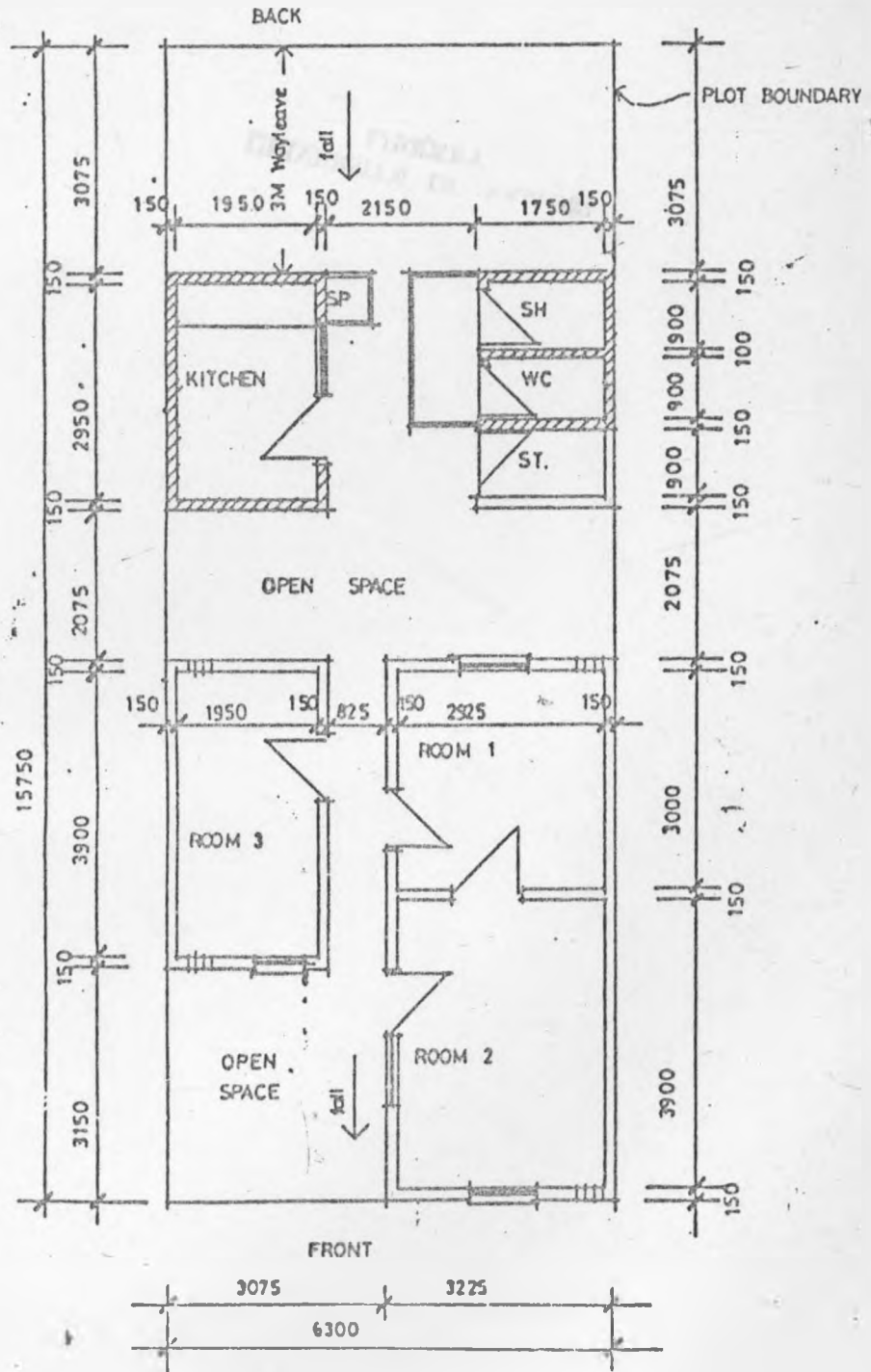
Dandora Phase II

Sc. 1:100

Source: Housing Development Department : Dandora

APPENDIX 4 - 3

Type plan B



Dandora Phase II Sc. 1: 100

Source: Housing Development Department : E