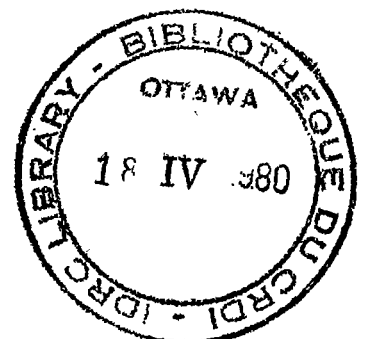PRELIMINARY REPORT - KENYA URBAN HOUSING NEEDS/

DEMAND STUDY 1978 - 2000

PREPARED FOR:

THE MINISTRY OF HOUSING AND SOCIAL SERVICES

DECEMBER 1978, NAIROBI

SARAH IBANDA

A C K N O W L E D G E M E N T

I am indebted to all those people who have helped me in the

preparation of this Report. My sincere thanks to the

International Research Development Centre for their kindness

in sponsoring me for a whole year in which I have been

able to learn various issues concerning housing. I am also

grateful to the Government of Kenya, especially the Ministry

of Housing and Social Services for the supervision and

all other help extended to me during this period.

Sarah Ibanda

30th December, 1978

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Forward

The underlying study was a rather ambitious one in that it was
to analyse housing needs/demand, of each of the 105 centres that
would be urban by 1980, over the next 22 years.

For housing needs such a study requires population projections
which has been prepared by the Ministry of Finance and Planning. It
is necessary to have knowledge of expected trends in household size
and household formation, which are very difficult to establish. Basic
housing standards are required to determine exactly what can be
included in the housing stock.

To obtain meaningful housing data it may be necessary to carry
out a housing census first. Such an exercise if carried out
independantly from a population census, surely requires quite
sizeable team of manpower.

With regard to incomes it is important to know the proportions
spent on housing by various income groups and social groups. To
this there is hardly any shortcut, apart from carrying out a household
survey.

After looking through the documentary data relevant to the study,
a questionnaire was developed which was to complement the documentary
data. This questionnaire, however, also has its limitations. Although
it has been tried to simplify the questionnaire as far as possible, it was
found during the pre-testing stage that it would not be possible to
carry out the exercise in all the 105 centres through a personal
interview. A sample survey has therefore been proposed.

It was found that the Local Authorities have not much of housing
records from where to get the answers for the questionnaire. In fact
some of them would actually have to make special housing surveys in
their centres.

This report will therefore only provide some overall data and statistics on housing need and demand. It is however hoped that through the framework of this study and the questionnaire developed therein, further insight and more detailed information on this pressing problem of housing millions of people in a smooth and satisfactory way can be found.

Housing need and demand is not a static problem but a problem which requires a continuous review and so provide policy makers guidelines for their decisions to improve upon the welfare and well being of the population.

Nairobi December 1978   G.J. Verbeek

1. INTRODUCTION:

1.1. Purpose of the Study:

This study was to analyse dwelling shortages and future housing requirements (in terms of housing needs) in relation to the future building rates that should have to be maintained for the building programme. The knowledge, of the volume and structure of long-term needs approximate as they may be, is a very useful main source of information for long-term housing policies especially when considering social welfare as regards to housing. The same information can be used in making long-term strategies in the building industry and also for macro-economic considerations, such as employment, production, investment and consumption (expenditure).

Estimated housing needs when considered in relation to available resources, provide an indication of the proportion of the needs that can be met within the Programme/Plan Period. On the other hand housing need/demand study may help the would-be investors in housing to decide on where to locate their projects. It is the housing demand estimates that have the decisive role in working out the general principles of housing policy and in elaborating Housing Programmes, due to the fact that it shows the extent to which households in need of housing may be in a position to pay for improved housing. It is also through the housing demand analysis, that programmes which are to be financially self-supporting are determined.

1.2. Role of Housing in the Kenya Economy:

Housing is a basic need especially for, shelter against the weather elements, healthy environment and security when looked at as a welfare good. When looked at as an industry, housing has a major role to play in the national economy. The importance of housing in the economy can be evaluated in terms of employment, production, investment and consumer expenditure.

In Kenya construction employs directly about 5% of the total wage employees in the country. It has been estimated that each K£.1 million spent on construction in the formal sector generates one year's employment for about 680 men, both skilled and unskilled. New residential building including traditional sector takes about 60% of all the funds invested in building and about 17% of the total capital formation. On the other hand building and construction contribute about 6% to the Gross domestic product.

For most households in Kenya rent consumes from 8% to 40% (25) of
the household income. Housing expenditure is one of the largest
single item that consumers spend on regularly. On the other hand
housing is a source of income especially when let or sublet and a
place of business for many of the poorer households.

What is mentioned above are the direct effects of housing in the
economy, but housing can bring several multiplier effects, especially
when it generates demand for other types of construction and services,
roads and public utilities being the most important. Economic
activity is still generated in the furniture producing industry and
those producing other house equipment.

1.3. HOUSING NEED AND DEMAND DEFINED: (21)

According to the U.N. manual on methods of estimating Housing Needs,
housing is used in a social sense to express the extent to which
housing conditions fall below the levels or norms considered neces-
sary for health, privacy and the development of normal family living
conditions. In fact it is a measure of Housing Deficit which is the
difference between total households and the number of dwellings
deemed habitable. It is expressed in terms of standards which are
set arbitrarily and have nothing to do with people's aspirations
but give some indication of the numerical size of the housing
problem. Assuming that the established norms are to be maintained
for the future, then future housing needs resulting from new house-
hold formation and decline in the housing stock must be considered.
Experience has shown that estimates of normative housing needs often
become obsolete due to constant economic and social changes.

For purposes of this study the needs are not measured in terms of
conventional dwellings as is suggested by the United Nations, because
doing so would imply that hardly anybody in the rural areas of Kenya
of in the urban squatter/slum areas is housed. In this study the
standards will be implicit especially when overcrowding, involuntary
doubling, homelessness and unfit dwellings are referred to.

Housing demand is the willingness and ability to pay for housing.
It depends mainly on the households income and the prices at which
housing is made available. Affordable rent determines the value of
accommodation that a household can afford. This does not always
stand especially when there is subsidized housing and rent controlled
housing and people can afford higher standard housing. Housing need

and housing demand complement each other in that once housing needs
are identified they can be formulated in terms of effective demand.
On the other hand knowing housing demand helps to establish norms
for housing needs. Both housing demand and need have specific
functions and their role depends much on the housing stystem and
the situation in each country. In mixed economies, housing demand
is used to make comparisons with the housing needs for use by the
public authorities responsible for housing policy.

1.4. GEOGRAPHICAL COVERAGE:

All centres which will be urban by the year 1980 are included. Urban
here refers to settlements which will be of 2000 inhabitants. All
together there are 105 centres comprising of two settlements of
959,000 and 405,000 inhabitants respectively, nine principal towns
and eighty four urban centres and ten rural centres. The principal
towns are 'major growth centres' in development potential areas
intended to encourage regional growth. These principal towns are
leading centres of urban and industrial growth, given their strategic
location relative to existing or potential population distribution,
resource development transportation networks, economic organization
and level of infrastructure. By concentrating development in these
principal towns and increasing employment opportunities, it is hoped
that more alternatives will be open for the absorption of the migrant
population and hence lessening the problem of excessive concentra-
tion in Nairobi and Mombasa.

Urban centres, as defined in this study, fall within the Service
Centre Strategy which aims at distributing basic services such as
water supply, health services and education in an equitable and
economic manner over the whole country. The service centres are
designated in hierachy depending on the population it is supposed
to serve. Principal towns and urban centres are aimed at residential
settlements of 100,000 and 5,000 respectively. The regional distri-
bution of all the urban settlements as in 1980 is as follows (see
table below):-

1.4.1. - <u>Regional Distribution of Urban Settlements</u>:

Province	Number of Centres	Population in 1980.		
		Total Number (1)	of which Urban (2)	
			Number	Perc.
Nairobi	1	1,098,400	1,098,400	100
Central	20	2,377,000	143,400	6
Coast	10	1,372,000	511,000	39
Eastern	19	2,650,000	103,000	3.9
North Eastern	3	276,000	4,900	2
Nyanza	12	3,175,000	164,300	5.2
Rift Valley	29	3,113,000	296,000	9.5
Western	11	2,011,000	62,300	3.8
Total	105	16,092,400	2,384,400	14.8

(26) (1) From Kenya statistical Digest Sept. 1972 Vol.X No.3.

(23) (2) From Urban population projections 1969-2000.

1.5. <u>STANDARDS</u>:

The concept of standard refers to actual situations, stated future goals and various planning regulations. For example what is standard in rural area may be substandard in an urban area.

In its guidelines (27) for an Administrative procedure for sites and service schemes, the National Housing Corporation came out with what is considered as minimum acceptable standard for both infrastructure and the superstructure. This minimum standard consists of two rooms, water closet, shower and kitchen. It allows for theuseoofsemi-permanent materials but with an ultimate aim of constructing a permanent structure. This is the standard house when using government funds.

According to Local Government (Grade II Building) order 1968, (28) by-law 10(2), it is stated that every dwelling with two or more habitable rooms, shall have one habitable room ! with a superficial floor area of 11 m^2 and that a habitable room should not be less than 7m^2 and that each person should have a minimum floor area of 3.5 m^2. If these standards are to be applied to the above minimal acceptable house by the government, the minimal habitable area that this structure can have is 18m^2 which when divided by the area per person can at the miximum accommodate five persons.

The government standard of the minimal acceptable house is not incorporated in the building regulations, hence it is just a guide for planning purposes. In a way, this standard gives a guide to the type of conventional dwelling that is aimed at. It should be realized that some households are bigger than others. For example whereas the 2-roomed house can accommodate household of five people, it will not suffice a household of eight people without overcrowding. On the other hand the 2-roomed house may be big for some single person who may just need a single room.

In, this study, there are no set-up standards. All types of housing are considered and standards are only implied where necessary. Of course, it is common knowledge to all those concerned with housing in this country that a big part of the present housing stock is far from the standard Conventional 2-roomed permanent house. For this reason a housing unit (interchangable with dwelling) is considered as the aggregate of rooms designed for the accommodation of a household.

1.6. Household Size:

The term household has several definitions, among which are the household-dwelling concept which defines household as the number of persons occupying one housing unit, the housekeeping units and the nucleus family. For the last two censuses, the household was defined as a group of people living together, whether or not they occupied the whole of a house, and sharing the principal meals. The Central Bureau of Statistics is now using the term household to refer to a person or group of persons generally bound by ties of kinship, who normally reside together under a single roof or several roofs within a single compound, and who share a community of life in that they are answerable to the same head and have a common source of food. In this study the term household is to refer to a person or group of people, related or not, living and sharing the principal meals. The household, may be using the whole house or just part of it.

A household is the basic unit for determining the number of housing units required. The definition used determines the magnititude of the housing needs. On the other hand if the average household size is reducing and population is increasing, there would be more housing units required, whereas if household size was increasing, less housing units would be required. When analy-

........./6.

sing needs, a bigger household would require a bigger housing unit than that required by a smaller household.

In 1962, the average household size was 6.25 for the whole country and in 1969 it had reduced to 5.26 while that for the urban centres was 4.18. On the whole, it can be seen that there is a declining trend in the average household size. And for this reason, the average, household size to be used in this study is to be fixed at 4, although the average household size varies for individual urban centres, no account is taken of structural changes in age and marital status of the population.

On the chart 1.6.1, the relationship between population and the household size required is clearly illustrated (30).

Household size

1969 : 4.4
1978-2000 : 4

POPULATION (MILLIONS)

Households (THOUSANDS)

Population

1969 : 1.08 million
1978 : 2.02
1980 : 2.38
1990 : 4.25
2000 : 7.13

1969 : 1.16
1978 : 0.76
1980 : 0.71
1990 : 0.55
2000 : 0.46

WOMEN (THOUSANDS)

Women (20-59)
per
household

Women (20-59)

1969 : 285
1978 : 384
1980 : 420
1990 : 580
2000 : 820 (THOUSAND)

2. HISTORY AND DEVELOPMENT OF URBAN HOUSING IN KENYA:

2.1. Housing Development after Independence.

It was in the post independence period that elaborate national planning began. During the same period the Government was determined to find solutions to its urban housing shortage. It was the urban housing pressure that prompted the Government to invite the United Nations experts to make a study of short and long-term housing needs, and to make recommendations on housing policies within the framework of Social and Economic Development Planning. The result was the Bloomberg-Abrams Report published in May, 1965(2).

Among the recommendations made were:-

(1) The establishment of a National Housing Authority with more power than the then Central Housing Board in the Ministry of Housing.

(2) To co-ordinate and initiate development by the local authorities.

In 1965, the Ministry of Housing was created, a very big step forward by the government showing its determination to tackle housing problems.

In 1965/66 Sessional Paper No.5 (5), it is stated that Government's Urban Housing Policy would be to organize, in collaboration with local authorities, a programme which seeks to develop housing projects which will provide essential housing and a healthy environment to the urban dweller at the lowest possible cost to the occupants.

The National Housing Corporation, which replaced the former Central Housing Board was established in 1967.(29), as a response to the United Nations Report by Bloomberg and Abrams. Unlike the former Central Housing Board which could only make loans to local authorities the National Housing Corporation had new powers to make loans to individuals and to initiate and build its own projects. The overall function of the National Housing Corporation is to act as an executive arm of the Ministry of Housing and Social Services and ensure that housing policy is implemented. It represents government interests in matters related to practical and technical details of project implementation, while the Ministry concerns itself with broader issues.

After issuing Sessional Paper Number 5 on housing policy, the government was set on solving the housing problems. The establishment of the Housing Research and Development Unit (HRDU), to compile background information for housing development, the Housing Finance Company of Kenya (HFCK) to help in financing of Housing, and the Rent Restriction Department to help in controlling rents were all efforts aimed at easing the implementation of Housing Policy.

2.2. DEVELOPMENT PLANS AND URBAN HOUSING 1966-1983;

2.2.1. 1966-70 Development Plan.

The 1966-70 Development Plan envisaged seven categories of Housing and most of these were concerned with urban Housing. There were no priorities spelt out. Low-Income urban housing was to be dealt with through the rental and home ownership schemes. Although the government was aware of the financial limitations of the low-income group, it discouraged any form of direct subsidy. Instead the government found the sites and service schemes as a practical approach, whereby the government surveys and prepares building sites; and provides roads, water, security lighting, sewage disposal and garbage removal. On these serviced plots the tenants can then build their own houses.

2.2.2.- 1970-74- Development Plan.

The 1970-74 Development Plan stressed the government's Housing Policy prime objective as the move towards a situation where every family in Kenya will live in a decent home, whether privately built or state sponsored, which provides at least the basic standards of health, privacy and security.

In this Development Plan, the main aim was to increase the housing stock and this was to be done through various programmes namely:-

(1) Loans to Municipalities and other local authorities.

(2) Direct construction of housing where local authorities cannot undertake it.

(3) Pilot schemes in rural areas in connection with the Special Rural Development Project (SRDP), and in urban areas.

(4) Participation in the financing of private housing by business enterprises and by individuals.

(5) Assistance to companies who undertake employee housing projects.

(6) Financial and technical aid to housing schemes in settlement.

(7) Improvement of housing design, with emphasis on the use of local materials.

(8) Research into housing markets and the constraints of supply especially in finance, the contracting and building industry and in building codes.

In 1968 it was estimated that over four fifth of the urban effective demand was for dwellings costing K£.1,200 and below. During the 1970-74 Development Plan a ceiling of K£.1,200 was put on the cost of houses which were to be financed through the Development Funds. Assumptions taken in arriving at the figure of K£.1,200, were that a household can afford a home costing $2\frac{1}{2}$ times its annual income or pay a rental of about 25% of its monthly income.

The households covered under the cost ceiling of K£.1,200 were those earning less than K£.480 per annum paying a monthly rent not exceeding KShs. 200/=.

The houses costing more than K£.1,200 were to be catered for by the H.F.C.K. and the private sector.

2.2.2.1. - <u>Housing Programme 1970-74</u>:

The total investment in housing, both public and private was estimated at about K£.53 million. The government intended to spend K£.27million on housing representing over 13% of government's total spending for development during the plan period. Of the 27 m. the Ministry of Housing was allocated K£.14.9 m., the remainder was allocated to the various Ministries for institutional housing. Of the Ministry of Housing's development fund 85% was planned for urban areas and a third of the urban housing fund was set aside for the site and services programme.

2.2.3. - <u>1974-78 - DEVELOPMENT PLAN</u>:

High priority was placed on the rapid improvement of housing standards in the country. Due to the limitations of resources, government was to concentrate mainly on the urban Housing problems. The policy as laid down in the previous development plan was to be continued in more or less the same way.

2.2.3.1 - <u>HOUSING PROGRAMME 1974-78</u>:

Government allocated K£.34.5 m. through the Ministry of Housing
and Social Services and K£.8.8m. on institutional Housing making
a total of K£.43.3 million, an increase of 60% in current prices,
over that of the last plan period. Urban Housing requirements
1974-78 were estimated at 110,000 housing units plus an accumulated
50,000 housing units making a total of 160,000. If the housing
requirements for 1974-78 had to be fulfilled, then production had
to be at a level of 40,000 housing units per annum. The estimated
total cost for the 160,000 units was approximately K£.130 million,
of which only K£.81 million was planned for. The rest was to be
met through loans from the commercial banks, Housing Cooperatives,
World Bank and other external institutions. For first time the
Ministry had carried out a housing needs-study 1973-78 that has
acted as guidelines. (18)

2.2.3.2.- <u>HOUSING OBJECTIVES FOR 1974-78</u>:

Most of the objectives are the same as those of the 1970-74
Development Plan, except for a few additions namely:-

(1) To ensure that Housing Design and Construction Conform to
    Government standards and that each housing unit constructed
    in urban areas shall have at least 2 rooms plus its own
    kitchen, water closet and shower.

(2) To ensure that (a) No additional unauthorized housing settle-
    ments are erected,(b) Slums are removed when satisfactory
    alternative housing has been found,&(c) Sub-standard urban
    housing is improved.

2.2.4. - <u>1979-83 DEVELOPMENT PLAN</u>:

Emphasis is put on the improvement of the housing situation,
especially Squatter upgrading and provision of Sites and Services
just as in the last plan period. Besides this, the government
is to concentrate on the problems of low-income urban population.
Again the government is to devote most of its resources to the
low-cost housing, although it will try to stimulate the middle
cost and high cost housing through the provision of serviced land,
technical information and the promotion of financial institutions.

2.2.4.1. - <u>HOUSING PROGRAMME 1979-83</u>:-

The Ministry has been allocated K£.57.2 million, an increase of
66%. And of these funds K£.37.6 is to be used in the 38 urban

centres that have been selected as economically viable for a
minimum *housing* project. The rest of the funds are to be used for
Pool Housing and Mortgage Housing.

2.2.4.2.- HOUSING OBJECTIVES FOR 1979-83:

The policies and objectives are not different from those of the
previous development plans.

3. A METHODOLOGY FOR ESTIMATING HOUSING NEED AND DEMAND IN THE URBAN KENYAN CONTEXT.

3.1. Housing Needs.

Housing Need Studies are carried out to analyse the existing dwelling shortages and the future housing requirements. This enables Planners and Policy-makers to set targets on the future building rates and to have an idea about the magnititude of the need for the different social economic groups in the Society. Given the need for housing the policy-maker compares this with what is affordable, considering the available resources for housing and the magnititude of the need, inorder to come out with the most rational decisions on the housing policy.

The method proposed here is to work out the housing needs first. The second step would be to convert the needs into demand.

Housing Needs:- Housing needs consist of Accumulated and future housing requirements.

Accumulated Needs:- These comprise of those people who are homeless, unvoluntary doubling, overcrowding and staying in unfit dwellings.

Homelessness:- This refers to people who have no particular place of abode to retire to after their days activities.

Involuntary doubling:- Here there is an implication of privacy standards. The only people to include are those doubling up through forced circumstances usually caused by shortages, and would like having their own accommodation.

Overcrowding:- The only way to ascertain overcrowding is to measure it against the set norms. In the building Bye-Laws there are set standards of space per person and these can be used to measure the extent to which overcrowding is taking place.

Unfit Dwellings:- This is an expression used to refer to standards of health or fixtures and fittings as set out in the Building Code.

So far, there are no reliable statistics on Homelessness, unvoluntary doubling, overcrowding and unfit dwellings. This requires housing surveys to be carried out in the particular location or centre whose housing need is being worked out. The exercise is bound to be costly, very time consuming and requires a lot of skilled manpower in housing surveys.

The above method would be most appropriate for accuracy, but for quicker estimate of an accumulated housing shortage, the comparison of the housing stock and the number of households will suffice. This is quantitative housing shortage estimate.

Already the Ministry of Housing and Social Services has compiled statistics on public and semi-public housing stock (24) for all local authorities. If the number of households catered for by public and semi-public housing could be ascertained, then the rest could be assumed to be catered for by private housing. If the total public and semi-public housing stock plus the private housing stock tally with the estimate number of households, then there is no housing shortage. Should the total housing stock fall short of the estimated number of households then the differences between the two is the housing shortage. Data and statistics on the existing housing stock is very scarce and it is for this reason that questions on the housing stock have been incorporated in the housing questionnaire that has been developed.

3.2. FUTURE HOUSING REQUIREMENTS:

The future housing needs are the requirements which involve demographic changes. In Kenya's case future housing requirements are meant to cater for households that are formed as a result of future household formations due to marriage or separation from other households or immigration.

For Kenya, the estimate of future households, can be worked out by means of the headship rate method which uses the existing structure of population and the expected future population structure through sex, age and marital status. Here economic and social developments are basic to the projections. Besides demographic changes, future housing requirements involve replacement due to demolition (for catastrophes or overriding reasons) and depreciation. The rate of replacement has to be determined given the building materials used for the housing stock.

3.3. HOUSING MARKET MODEL:

It is very difficult to understand housing demand without knowing how the housing market operates. The demand for housing is influenced by the supply. The most appropriate approach for analysing the housing market is through a model which incorporates all the factors of supply and demand (see Diagram 3.3.1.1.).

This model uses the Mobility Approach which uses forecast flows
of households formed and those which move. It is these households
that generate the demand for housing and hence call for the supply
of housing. Use of this model would require occupants inquiries
to be carried out. These inquiries will help to find out if
what is supplied, is what is demanded. Some of the questions
in an occupants inquiry would include the following:-

(1) Age of occupants

(2) Household structure

(3) Profession and Occupation.

(4) Place of Work (distance)

(5) Type of present occommodation (in terms of rooms and rent)

(6) Tenure - mortgage, Rental or Tenant Purchase

(7) Duration of stay in present accommodation.

(8) Where have the occupants lived before:

(9) Type of accommodation they would like to have (as in 5).

(10) How much the occupants are willing to pay for better/
new accommodation?

(11) Are the occupants satisfied with their present accommo-
dation?.

Analysing waiting lists of housing agents, government pool housing
and that of local authorities can give substantial information
on the demand for housing especially for the potential movers.

3.3.1. - NOTES ON THE HOUSING MARKET MODEL:

To understand this Housing Market Model, one has to think of
the housing demand as being created by households (who are the
consumers) and the housing supply (goods) as the dwellings that
are available to meet the existing housing demand. For this
housing market model the factors that constitute demand are:-

1. New Households.

These new households are usually formed out of an existing
household and can be starters (when young people come of age
and decide to live on their own or get married). In most
cases marriage is an determining factor for household formation.
On the other hand households are split through divorce.

2. Emigrants: These are households that come from outside and
come to stay in a new location. They have no house left behind,
like starters, in that particular location.

3. Movers:- These are households that move from one house to another

within the same location. The reasons for wanting to change accommodation can be due to changes in the price of present accommodation. For example if the price for present accommodation rises, then those people who cannot afford, vacate their dwellings and look for cheaper ones. On the other hand those households who can contain the price change and are interested in the vacated dwellings are free to have the houses left behind. Besides households are bound to change their needs and standards (in the diagram this is referred to as quality change). These mover households have dwellings left behind which can be added to the housing supply, while at the same they create additional demand for housing. Mobility in the housing market is reduced in situations where there is a housing shortage and rent control policy. Sometimes households have to move because of eviction from present accommodation or in order to move nearer to job opportunities.

Factors that constitute supply are:-

(1) mortality- houses that are vacated through households being disolved by death. This would be true if the head of the household who has been the bread earner, and when the household has been occupying rental premises. If the household is living in its own paid up house, then the remainder of the household can still use that dwelling. In fact death may not always result in additional vacant houses.

(2) Emigration - This would involve houses that are left behind by people who transfer from one place to another.

(3) Movers - Households that move within the same locality, tend to live behind houses that are added to the housing supply.

(4) New Houses Constructed - All the new houses completed are usually an addition to the housing supply.

| NEW CONSTRUCTION | | Movers | | Immigrants |

Price charge   Quality charge

Total Supply	Mortality	Occupied Housing Stock	Splitting of House Holds (starters)	Total Demand
	Birth			
	emigration		Demolition	

Price effect on occupants   Quality effect

satisfied Demand

dwelling factors
household factors

dwellings
households
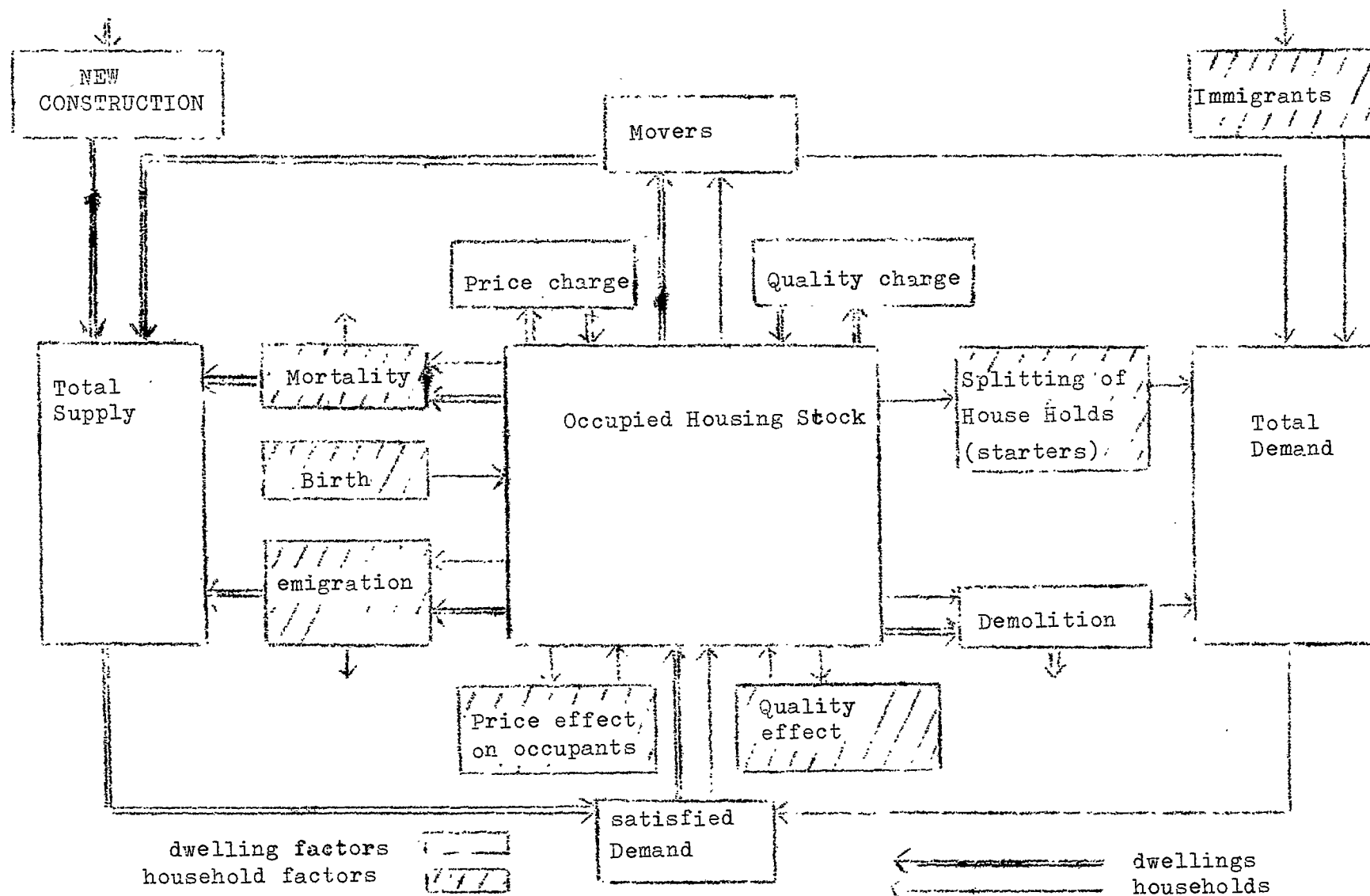
3.4. URBAN HOUSING DEMAND:

Given the available data, the limitations on the manpower and
financial resources in the Ministry, it is not feasible at present
to tackle Housing Demand using the mobility approach as spelled
out before, therefore a simplified method that looks at households
incomes distribution, proportion of income spent on housing in
comparison to dwelling costs in order to find out households
affordability of housing will be sufficient for the time being.
Below is the method which could be applied for analysing housing
demand for the 105 Local Authorities under consideration.

Household Size:

The household size is a basic item for determining the number of
housing units required. It is from the total number of households
required that estimates of effective demand for the different
income groups can be made. The average household sizes used are
those obtained from the 1969 census. It is most likely that the
household sizes for the various centres have changed over time.
Depending on what trend the population growth has taken, household
sizes could have increased or decreased. Higher population growth
is usually associated with bigger households and the reverse is
assumed for the low population growth. The 1979 population census
will determine the actual trend of household size; but those data
will be available in 1980 at the earliest. For further analysis it
is assumed that the average household sizes remain fixed for the
period under consideration.

Average Income Distribution:

The income distribution referred to is that of the wage employees
in 1975, which is the latest available information. The proportion
of wage employees to that of total labour-force for the last five
years in the whole country does not exceed 20%. Even the number
of those in wage employment usually falls short of the total
number of households. In reality every household (especially
urban) has a source of income, whether it is from the modern or
informal sector, where most of the urban dwellers especially the
low-income earners are employed or self-employed. On the other
hand it is not very easy to convert average income distribution
of wage earners into household incomes, because to do so involves
making a number of intuitive assumptions. For the purpose of
this study, it is assumed that the income distribution will remain

fixed, for the period under consideration.

Housing Standards:

Housing standards determine the monthly cost for accommodation.
Unserviced accommodation constructed of temporary materials in
a high density low environmental surrounding will have a lower
price than the same but near locations of employment and higher
~~the same but~~ *Similar Housing which is*
environmental surroudings. The same is valid for houses build
of permanent materials in a well planned estate. The dimensions
of the house, the rooms and the facilities available, the finishes,
the fire-resistance all contribute to the standards and hence the
price of the accommodation. For the purpose of this study, however,
it is assumed that standards as laid down in the Building Code
and in the National Development Plan, are constant. It is
likely that if certain standards could be lowered then probably
more houses could be constructed from the same Development Funds
and more people would be in a position to afford housing. (refer
to paragraph 1.5.)

Government Policy:

The Government policy here refers to housing and the economy as
a whole. For example if Government policy was to give a housing
subsidy to a certain income group, the affordability for these
people will change. This is true in the case of some civil servants
who stay in government allocated quarters whose market value is
much more than what they pay. Supposing these people were told
to pay the market value for the same quarters, it is most likely
that their affordability of housing will change. On the other
hand government policy on taxation and imports is bound to have
direct and indirect effects on the affordability for housing for
various income groups. The last development plans have more or
less had continuity in Government Housing Policy, and it is expected
that no major changes will take place.

Given the above limitations in average household size, average
income distribution, standards and government policy, the study
attempts to look further at:-
1. Population growth.
2. Employment.
3. Proportion of Income spent on housing.

Population Growth: (See chapter 4 for further details)

> The study is to look at demand for housing using low and high population projection.

Employment: (See chapter 5 for further details).

> The following assumptions are made on employment:-
>
> 1. All heads of households are employed.
> 2. The number of household heads receiving an income, is equal to the number of those in wage employment.

Proportion of income spent on housing:

> It has been found from empirical studies that the proportion of income spent on housing varies when income changes. It can vary from a low 8% to as high as 40%. It has also been found that within each income category there is a certain variation around the average percentage spent on housing. This variation is greatest for low-income families and the smallest for high income earners. Besides housing there are other primary basic needs which have to be catered for, such as food and clothing.

> The actual proportion of income spent on housing for urban Kenya has not been established. When planning schemes for households of different income groups the Ministry uses not more than 20% of the monthly income as expenditure on housing. This study will look into three variations, 15%, 20% and 25% of income spent on housing and its effect on the demand.

> The final results will indicate the effects on the affordability for housing when the low population projection is used, assuming that all households are employed and when different proportions of income (i.e. 15%, 20% and 25% are spent on housing).

> The same exercise will be done for the high population projection, assuming that the number of employed households is equivalent to those in wage employment and using the different proportions of income (15%, 20% and 25% spend on housing).

Coverage:

> The urban population which this study intends to cover is spread over 105 centres as explained in paragraph 1.4. There are about 2 million people in all these settlements at present. Since the study is concerned with assessing housing demand, population distribution is a major determining factor. The centres have been

distributed according to their population density into five
categories i.e.:- (See table 3.4.1.)

        (a) 2,000- 5,000 - 67
        (b) 5,000-10,000 - 18
        (c) 10,000-50,000 - 16
        (d) 50,000-100,000 - 1
        (e)100,000 and over- <u>3</u>
      Total No.of Centres <u>105</u>

It is considered that analysis of all the 105 centres would not
necessarily provide better results than a properly selected
representative sample of the five categories. For purposes of
this study it is considered that <u>all centres with over 50,000</u>
(category 'd' and 'e') people be included. These settlements
have been selected because they are considered major towns in the
country and cobine the most important urbanizing roles in the
country i.e. Administrative, industrial and location on major
transport network. It is in these centres where employment
opportunities are most favourable and hence the big pull of migrants
to these centres. The rest of the centres, in categories - a, b and
c were listed according to their population sizes and one centre
was picked randomly at every fifteenth count. In the end one centre
was selected in each category of b and c, whereas few centres came
from category a.

Below is a list of the centres that have been selected:-

Centre	Population (1980).
1. Nairobi	1,098,400
2. Mombasa	446,600
3. Kisumu	124,000
4. Nakuru	79,800
5. Kericho	19,400
6. Lamu	9,200
7. Eldama-Ravine	4,100
8. Kiganjo	2,500
9. Kendu-Bay	2,000
10. Butere	2,000
Total	1,788,000

This accounts for about 90% of all the total urban population
in 1980.

3.4.1. - Distribution of Centres by Province and Size of Town:

Province	2,000 - 5,000(a)	5,000 - 10,000(b)	10,000 - 50,000(c)	50,000 - 100,000(d)	100,000 and over(e)	Total
Nairobi	-	-	-	-	1	1
Central	15	2	3	-	-	20
Coast	5	3	1	0	1	10
Eastern	12	2	5	-	-	19
N. Eastern	3	-	-	-	-	3
Nyanza	9	1	1	0	1	12
R. Valley	16	7	5	1	-	29
Western	7	3	1	-	-	11
Total	67	18	16	1	3	105
Number in Sample.	4	1	1	1	3	10

3.5. - HOUSING FINANCE: *3·5·1*

The attached chart shows the income groups distribution for the major towns as given by the C.B.S., and their affordable capital cost of housing for the most common housing schemes. Taken into account are the prevailing interest rates, administrative fees, cost of land and bad debts. Besides it is assumed that income distribution of wage earners is representative of household incomes and that households do not spend over 20% of their monthly incomes.

The calculations for capital costs for the various schemes are based on:-

1. Site and Service Scheme:

This applies to where the land is serviced with roads, water, sewage and at times even a wet core (i.e. kitchen, w.c. and sometimes one or two rooms provided depending on one's income and the type of scheme).

Capital -	KShs.	1,000.00
Deposit -	"	50.00
Loan -	"	950.00

N.H.C. gives loan over period of 20 years at 6.5%.

Annuity 950x.0907564	"	86.22
Maintenance 2% of the capital cost	"	20.00
Insurance 0.25% of the capital costs	"	2.50
Land rent 3% of land value (10% is assumed value of land).	"	3.00
Annual payments	"	111.72

Administration 7.5%

Bad debts 5.0%

12.5% of the Annual Payments	"	13.97
Rates - 5% of unimproved site value (roughly 0.4 of capital cost).	"	4.00
Total Annual Payments.		129.69
Annual Repayments as % of Total Costs - 129.69: 1000x100 =		13%

2. Rental House:

Capital Cost	KShs.	1,000.00
Loan	"	1,000.00
N.H.C. gives loan over period of 40 years at 6.5% to local authorities. Annuity 1000x0.07069373	"	70.69
Maintenance 2% of capital cost.	"	20.00
Insurance 0.25% of capital cost	"	2.50
Land rent 5% of land value	"	5.00
Annual Payments.	KShs.	98.19

Administration 7.5%

Bad debts   5.0%

12.5 of Annual Payments	,,	12.22
Rate – 5% of unimproved site value (roughly 0.4% of capital cost)		4.00
Total Annual payments.	KShs.	114.46
Annual Repayment as capital cost 114.46: 1000x100 =		11.4%

3. Mortgage House:

Capital cost	KShs.	1,000.00
10% Downpayment	"	100.00
Loan	"	900.00
The H.F.C.K. gives loan over period of 15 years at interest rate of 9.5% for owner occupiers Annuity 900x0.127733	"	114.96
Maintenance 2% of capital cost	"	20.00
Insurance 3% of capital cost	"	3.00
Land rent 4% of Land Value (assumed Land value is 10% of capital value)	"	4.00
Rates 5% of unimproved site va ue (roughly 0.4% of capital value).	"	4.00
Total Annual Payments	KShs.	145.96
Annual Repayment as % of Capital cost (145.96: 1000x100) = Rounded		14.5%

Affordable capital cost, for the three different schemes that is Site and Service, Rental and Mortgage, is obtained by this equation.

CXR. where it is Annual Housing Expenditure C is the affordable capital cost and R is the annual repayment.
In the 1976-77 period the site and service plots were costing between KSh.8,000-20,000. During the same period rental houses (2-rooms, Kitchen, shower and w.c.) were costing from KSh.34,000 and over whereas Mortgage houses were costing from KSh.50,000 and above.

3.5.1. INCOME GROUPS 1976, AFFORDABLE MONTHLY EXPENDITURE AND CAPITAL COST – MAJOR TOWNS.

Monthly Income in KSh.	% of Total wage earners	Cum. % of wage earners	monthly Housing Expenditure as 20% of Income in KSh.	CAPITAL COST IN KES.			
				as 2.5 x Annual Income	Site & Service Annual Repayment = 13%	Rental Annual Repayment = 11.5%	Mortgage Annual Repayment = 14.5%
Under 150	1.5	.	‹ 30	‹ 4500	‹ 3000	‹ 3000	‹ 2000
150–199	4.5	6	30–40	4500–6000	3000–4000	3000–4000	2000–3000
200–399	21.9	27.9	40.80	6000–12000	4000–7000	4000–8000	3000–7000
400–599	24	51.9	80–120	12000–18000	7000–11000	8000–12000	7000–10000
600–799	11.3	63.2	120–160	18000–24000	11000–14000	12000–17000	10000–13000
800–999	9.6	72.8	160–200	24000–30000	14000–18000	17000–21000	13000–17000
1000–1499	10.2	83	200–300	30000–45000	18000–28000	21000–31000	17000–25000
1500–1999	5.5	88.5	300–400	45000–60000	28000–37000	31000–42000	25000–33000
2000–2999	5.3	93.8	400–600	60000–90000	37000–55000	42000–63000	33000–50000
3000–5999	4.5	98.3	600–1200	90000–180000	55000–110000	63000–125000	50000–99000
6000–and over	1.7 / 100	100	1200 & over	180000&over	110000&over	125000& over	99000 and over

Figures on Capital Cost rounded to the nearest 1000.

3.6. LOCAL AUTHORITY HOUSING QUESTIONNAIRE

There is, if any, very scarce data on housing need/demand for
Kenya. Apart from the big centres like Nairobi, Mombasa, Nakuru,
Kisumu and Thika, the rest of the country lacks documented data
and statistics that can be used as a base for any housing study.
The Ministry of Housing and Social Services had made an attempt
at compiling public and semi-public housing stock as at 31st
December, 1975. A questionnaire has been developed which is
intended to update the public/semi-public housing stock and at
the same time collect statistics for private housing in all the
105 centres under consideration. For proper housing need study,
it is essential that existing housing conditions and occupancy
rates are established in order to find out the exact magnitude
of the housing deficit. As for housing demand it is not just
enough to know the income distribution of a centre, because
this says nothing of the different household sizes, type of
accommodation sought for, and exactly how much households are
willing to spend on housing. In short the questionnaire was
intended to fill the gap that existed between available
statistics/data and that which could be used to come out with
meaningful estimates of housing need/demand, for the present
and the future.

3.6.1   <u>HOUSING QUESTIONNAIRE:</u>

Name of the Council: ....

Name of the Centre: ....

Location Code: ....

Physical Planning Status: ....

Administrative Status:...

Address /...

....

....

....

Date forwarded: ....

Date Returned: ....

<u>APPLICATION FORM FOR HOUSING AND RESIDENTIAL PLOTS</u>

1. Do you have standard application form for:-

    (a)   Council Housing Schemes?
            If yes please attach
    (b)   Residential/Business cum residential plots?

            If yes please attach.

<u>WAITING LIST FOR COUNCIL HOUSES:-</u>

2. Do you have a waiting list for Rental, Tenant-Purchase, Mortgage housing and site and service plots

yes	
no	

(a) If you have a waiting list what does it indicate to you(in terms of people presently on waiting list, their income, maximum/average time on list, procedure of dealing with people on list and any other findings)?

....

....

....

....

....

....

....

....

....

2b   If you have a waiting list, from when did this start?

....

....

RENTAL ACCOMMODATION:

3.   How many rental housing units had your council in ....
township as at 31st December, 1977?

	Number of Units
Single roomed	
1 bed roomed	
2 bed roomed	
3 bed roomed	
4 bedr roomed	
5 bed roomed or more	
Total	

a.   Does subletting take place in your rental housing schemes, if so
to what extent? ....

....

b.   What is the rent per room sublet in Council rental units?
From ....To ....Ksh.p.m.

4.   Does your Council own any hostels?

Yes	
No.	

a.   If you own any hostels, please give details in the table below:

name of hostel	number of beds	cost per month per person

b.   How much do you estimate that your tenants spend on housing as a
percentage of their regular incomes? ....

....

....

....

TENANT PURCHASE ACCOMMODATION

How many Tenant Purchase Units had your Council in ....
Township as at the 31st December 1977?

	Number of units
Single roomed	
1 bedroomed	
2 bedroomed	
3 bedroomed	
4 bedroomed	
5 or more bedroomed	
Total	

a. How many tenants do you estimate are subletting their houses completely or partially in Tenant Purchase Schemes?

subletting	number
completely	
partially	

b. What is the rent per room sublet?

From .... To ....Kshs. p.m.

6 HOTEL/LODGING ACCOMMODATION

If you have hotel and lodging-houses, please give the details in the table.

name of hotel/lodging	number of beds	Ksh.p.m. per person

7. HOUSING STOCK:

What is your latest estimate of the total number of houses within your administrative boundaries? (All Housing, including private, pool, institutional, and temporary houses).

Types of ownership		NUMBER OF HOUSES	
		Within old boundaries	in extended Total boundaries
Public	Staff		
	Rental		
	Pool/		
	Institutional		
	Other		
	Temporary		
Private	Residential		
	Business/cum Residential		
	unauthorized		
TOTAL			

a. Does the housing stock consists of big units such as 4-roomed and 5 toomed units or of small untis made up of one room? If possible give break-down in numbers.

No. of bedrooms	NUMBERS		
	Public	Private	Total
1			
2-3			
4-5			
6 or more			
Total			

b. What percentage of your housing stock is built of permanent materials?

_____%

c. How many houses and business-cum residential buildings have individual metered water connections?

Number	

HOUSING DEMAND

8. How do you assess the housing demand in your administrative area? with respect to:-

	Yes	No
1. size in terms of housing units required.		
2. Demand from public and private sector.		
3. Monthly payments people are willing and able to pay.		
4. Locations that are favoured.		
5. Others.		

9. What are the reasons for people wanting Council Housing as opposed to other housing?

....

....

....

....

10. What are the reasons given by people shifting within Council Housing?

....

....

....

....

11. What is the current approved rent structure of your Council Housing Schemes?

....

....

....

....

....

12. What is the rent for private rooms in authorized and unauthorized housing?

	Kshs. p.m.
Authorized	
unauthorized	

13. What is the occupancy rate per room in Council Housing?

number of people per room	

14. Are there vacant houses at present in your administrative area, such as those for emergency cases, or undergoing repairs or very expensive?

yes	
no	

a. If yes, how many houses are vacant?

number	

b. For question 14, if the answer is yes, what are the reasons for vacant houses?

....

....

....

PRESENT HOUSING PROBLEMS

15. What is the present housing situation for the following categories of Council staff, with regard to: Housing shortgage, overcrowding, sharing houses, substandard houses etc.

a. Low income: All those earning up to Kshs.800 per month?

....

....

....

b. Medium Income All those earning between Kshs 800 to 2,000 per month

....

....

....

c. High Income: All those earning 2000/- and over per month

....

....

....

....

16. What is the present housing situation for the following categories of Government staff. With regard to housing shortage, overcrowding, sharing houses, substandard houses etc.

a. <u>Low Income</u>: All those earning up to Kshs.800 per month

....

....

b. <u>Middle Income</u>: All those earning between 800 to 2000 shs. per month

....

....

c. <u>High Income</u>: All those earning Kshs.2000/- and over per month

....

....

17. What is the present housing situation for the following categories of <u>semi-government organisations</u>, and <u>large private firms</u> with regard to housing shortage, overcrowding, sharing houses, substandard houses etc:-

a. <u>Low Income</u>: All those earning up to Kshs.800 per month

....

....

b. <u>Middle Income</u>: All those earning between Kshs.800 to 2000 per month

....

....

c. <u>High Income</u>: All those earning Kshs.2000 and above per month

....

....

....

18. What is the present housing situation for the following categories of the Public at large (all those not covered in questions 15-17) with regard to housing shortage, overcrowding, sharing houses, substandard houses etc.

a. <u>Low Income</u>: All those earning up to Kshs.800 per month

....

....

....

....

b. <u>Middle Income</u>: All those earning between Kshs.800-2000 per month

....

....

....

....

18c. <u>High Income</u>: All those earning Kshs.2000 and above per month.

....

....

....

PLANNING

19. If you are aware of any plans for Private New Housing Development, in your administrative area, other than your own shhemes by:-

Co-operative
Private developers,
Owner builders
Please give descriptions of the projects below:

....

....

....

20. If your council is planning any new housing please give the names of the schemes, description of the schemes and sources of finance:

Scheme	No. of Units	source of Finance		
		NHC	COUNCIL	OTHER (STATE BODY)
Rental				
Tenant Purchase				
Mortgage				
Site & Service				

21. What type of housing development is most urgently required in your administrative area? Please give reasons for the choice you make.

....

....

22. Do you give any assistance or encouragement to private developers other than the supervisory role (that is ensuring that the building byelaws are followed?)

....

....

....

....

23. If you are aware of any present or future major development projects such as industrial, commercial, administrative or agriculturial which may create an extra demand for housing, please give brief descriptions,

....

....

....

....

24. Does your Council have suffient land for current purpose (i.e. up to 1983) and for the future (that is 1983-2000) housing development?

	yes	no
current		
future		

a. If the answer is yes, to current and/or future land for housing development, please give amount of land available.

	hectare
current	
future	
Total	

b. How much of the available land is already serviced with water supply, sewage, storm water drainage, roads, etc. If partly serviced (e.g. water only) please indicate what these services are.

	hectare	
	fully serviced	partly serviced
current		
future		
Total		

c. What is the allocation of the available land for the different types of housing development by density in hectares.

	Hectares	
density	current	Total
low		
medium		
high		
Total		

d. What would be your current and future land requirements for housing development by density in hectares.

	hectare		
density	current	future	total
low			
medium			
high			
Total			

4.   Population as a base for urban development.

4.1.   Introduction.

The size of population, its age and sex structure are very
important for any housing projections. For example knowledge of
total population size plus an average household size can lead to
the crude estimation of the minimum housing stock required. On
the other hand, distribution of population by age and sex is crucial
in determining labour force which shows the number of people out
of the total population that is available for employment. A fast
growing population is usually associated with high fertility rate
which indicates a high dependency ratio (i.e. the ratio of people
not in the labour force to total population). High dependency
ratios tend to have negative effects on the savings and invest-
ments in the country.

The starting point for any housing policy formulation or projections
is always population. The tables below show the population sizes
according to low and high projections (23)uptb, the year 2000.

Low projection implies a reduction in the fertility rate to 4 by
the year 2000 whereas with the high projection there is no change
in age specific fertility. (see graph 4.1.1.).

Migrant population is obtained by assuming that the ratio of
national population increase to the total national population is
the same as that for rural population increase to the total rural
population.

4.2.   Low Population Projection.

With the low population projection, urban population rises from
about 2 million people in 1978 to over 7.5 million people in the
year 2000. During the same period the proportion of the urban
population to the total population rises from 14% to 25%. The
estimated total urban population increases between 1978-2000 is
about 5 million of which 54% will be migrants, according to the
low population projection. This implies an additional 1.3 million
households that will have to be accommodated by the year 2000.

4.1.1. High and low population and household projections 1978 - 2000 (Urban)

Table 4.1.1.

- 36 -
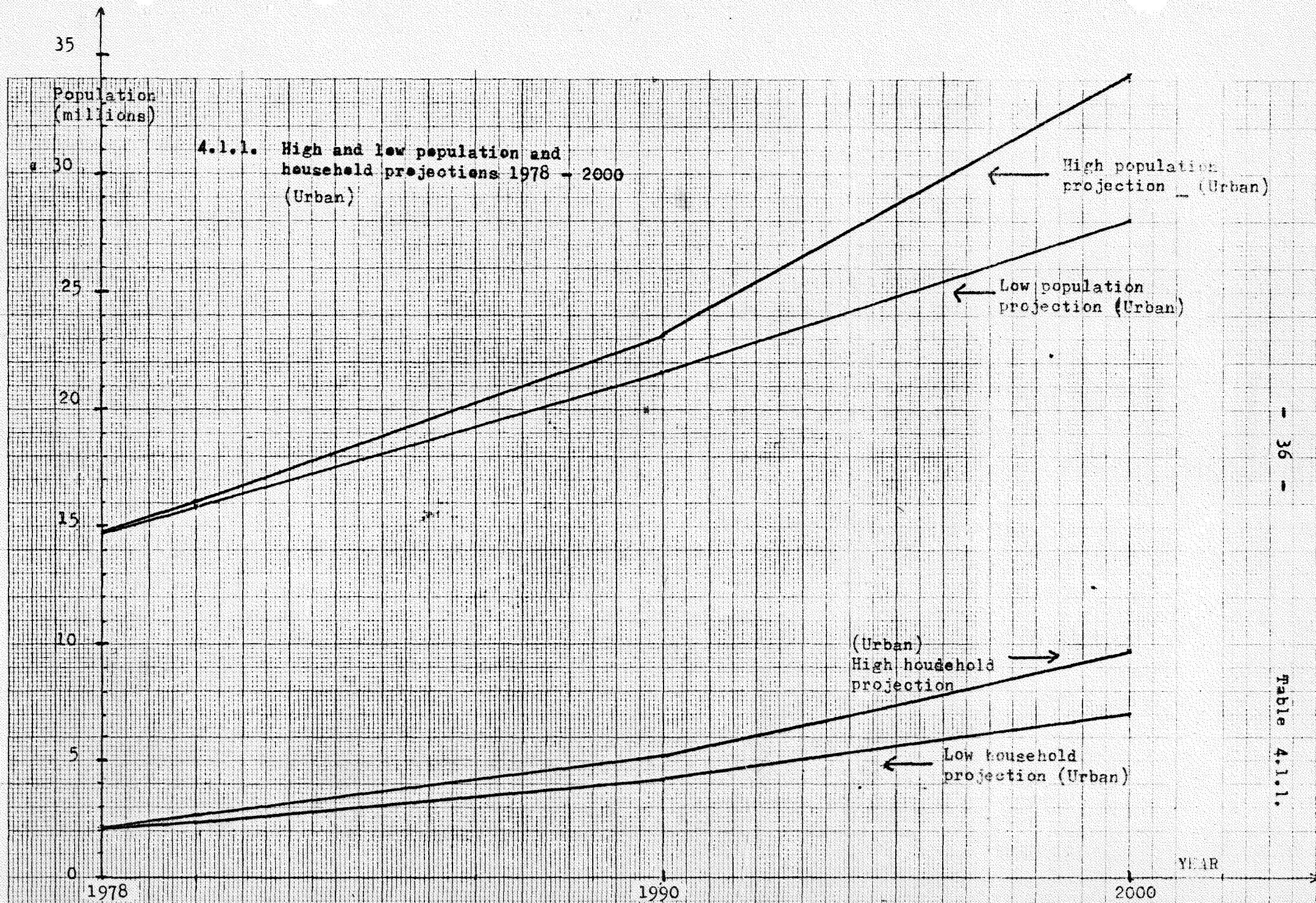
4.2.1. - <u>POPULATION, LOW URBAN PROJECTION - 1978-2000.</u>

| Year | POPULATION | | | | | |
| | Kenya | | Rural (4) | | Urban (3) | |
	'000	%	'000	%	'000	%
1978	14,806(1)	100.0	12,781.1	86	2,024.9	14
1980	15,877(2)	100.0	13,492.6	85	2,384.4	15
1990	21,617(2)	100.0	17,391	80	4,226.0	20
2000	28,131(2)	100.0	20,998	75	7,132.5	25
<u>Period</u> 1978-1980	1,071	<u>Increase</u> 100.0	711.6	66	359.5	34
1980-1990	5,740	100.0	3,898.4	68	1,841.6	32
1990-2000	6,514	100.0	3,607.0	55	2,906.5	45
1978-2000	13,325	100.0	8,217	62	5,107.6	38

(1) Kenya Statistical Digest, September, 1972

(2) Kenya Statistical Digest, June, 1971

(3) Urban Population Projections 1969-2000 by
        Ministry of Finance and Planning.

(4) By Subtraction.

4.2.2. – <u>Population Increase and Migration, Low Urban Projection ('000) 1978-2000</u>

Increase	Kenya (1)	Total (1) Rural	Rural Natural(2)	Out (3) Migration	% Natural Increase	Total(1) Urban	Urban Natural (3)	In Migration
1978-1980	1,071	711.6	894.7	– 183.1	26.0	359.5	176.4	+ 183.1
1980-1990	5,740	3,898.4	4,857.1	– 958.7	25.0	1,841.6	₀ 882.2	+ 958.7
1990-2000	6,514	3,607.0	5,217.3	–1610.3	45.0	2,906.5	1,296	+1610.3
1978-2000	13,325	8,217.0	10,969.1	-2752.1		5,107.6	2,355.5	+2752.1

(1) From the previous Table.

(2) $\dfrac{1071}{14,806} = \dfrac{894.7}{12,781.1}$

(3) By Subtraction.

4.3. High Population Projection.

With the high population projection, urban population rises from about 2 million people in 1978 to almost 10 million people in the year 2000. During the same period the proportion of urban population to the total population will rise from 14% to 25%. The estimated population increase between 1978-2000 is about 7 million of which 50% will be migrants, according to the high population projection. This implies an additional 1.8 million households that will have to be accommodated.

4.3.1. - POPULATION, HIGH URBAN PROJECTION - 1978-2000.

| Year | POPULATION | | | | | |
| | Kenya | | Rural (4) | | Urban | |
	'000	%	'000	%	'000	%
1978	14,875(1)	100.0	12,729.4	86	2,145.6	14
1980	16,053(2)	100.0	13,502.5	84	2,550.5	16
1990	23,302(2)	100.0	18,092.6	78	5,209.4	22
2000	34,286(2)	100.0	24,584	72	9,701.5	28
Period		Increase				
1978-1980	1,178	100.0	773.1	66	404.9	34
1980-1990	7,249	100.0	4,590.1	63	2,658.9	37
1990-2000	10,983	100.0	6,491.9	59	4,492.1	41
1978-2000	19,410	100.0	11,855.1	61	7,555.9	39

(1) Kenya Statistical Digest, Septermber, 1972.

(2) Kenya Statistical Digest June, 1971.

(3) Urban Population Projections 1969-2000 by Ministry of Finance and Planning.

(4) By Subtraction.

4.3.2. - POPULATION INCREASE AND MIGRATION, HIGH URBAN PROJECTION ('000) - 1978-2000.

Increase	Kenya (1)	Total (1) Rural	Rural Natural(2)	Migration(3)	% of Natural increase	Total (1) Urban	Urban Natural	In Migration(3)
1978-1980	1,178	773.1	1,008.1	- 234.9	30.0	404.9	170	+ 234.9
1980-1990	7,249	4,590.1	6,097	-1507.1	33.0	2,658.9	1,151.8	+1507.1
1990-2000	10,983	6,491.9	8,503.5	-2011.6	31.0	4,492.1	2,480.5	+2011.6
1978-2000	19,410	11,855.1	15,608.6	- 3753.5		7,555.9	3,802.4	+3753.5

(1) From previous table.

(2) $\dfrac{1,178}{14,875} = \dfrac{1008.1}{12,729.4}$

(3) By Subtraction.

4.4. HOUSING PRODUCTION.

During the last Development Plan Period 1974-78, it was estimated that approximately 6,600 complete housing units were constructed in urban areas using Government funds. Assuming that public and semi-public housing units were in the range of 7,000 and that they accounted for 23% of completed dwelling units. In the Public and Semi-Public Housing Stock Report by the Ministry of Housing and Social Services, it was found that public and semi-public housing accommodates 23% of the total population. Based on the above assumption, the total number of permanent completed housing units (including private) for the Plan Period 1974-78 was approximately 30,000. The annual housing production was about 7,500 units.

For the next 22 years, the housing production capacity has to reach the level of about 80,000 housing units per annum according to the low population projection and 140,000 housing units per annum according to the high population projection. These housing production capacities are meant to cater just for the increase in population. No account is taken for overcrowding, present shortfall, depreciation and slum clearance. This means that present housing production capacity must be stepped up eight to twelve times the present production capacity, provided all the households are to be accommodated in permanent houses.

5. LABOUR FORCE AND EMPLOYMENT

5.1. Labour Force Projections:

In housing, the people who pay for housing are those in the labour force because they are capable of having ' gainful employment. For purposes of this study the theoretical labour force will be considered, that is the sum of those 95% of men aged 15-59 and 45% of females between ages of 15-59. Based on these assumptions below is the projected labour force for the whole country.

Table 5.1.1. Labour force projections 1975-2000.

Year	High Projection		Low Projection	
	N U M B E R	Rate %	N U M B E R	Rate %
1975	4,515,000		4,515,000	
		3.48		3.48
1980	5,357,000		5,357,000	
		3.57		3.57
1985	6,376,000		6,376,000	
		3.70		3.70
1990	7,667,000		7,667,000	
		3.85		3.48
1995	9,258,000		9,090,000	
		3.91		3.14
2000	11,215,000		10,611,000	

Source:- Kenya Statistical Digest
June, 1971 Vol. IX - No.2.

From the above table it can be seen that the size of the labour force according to the high population projection will be rising at growth rates of 3.6% to 3.9% between 1980 and 2000. The labour force will rise from 4.5 million in 1975 to 7.7 million in 1990 an increase of 3.2 million (for the whole country) for both sets of projections i.e. low and high. Then from 1990 to 2000 the labour force will rise to 11.2, which is again an increase of 3.5 million, according to the high projection.

During the same period, the labour force according to the low population projection will rise to 10.6 million, an increase of 2.9 million. Between 1975-2000 the total labour force for the country will therefore increase by 6.7million and 6.1 million according to the high projection and the low-projection respectively.

In the table below a comparison has been made between the population projections and their corresponding labour force.

Table 5.1.2 - Population and labour force projection 1975-2000.

Year	High Projection			Low Projection		
	Total Population	Labour Force		Total Population	Labour Force	
		Number	% of Total		Number	% of Total
1975	13,413,000	4,515,000	34	13,413,000	4,515,000	34
1980	16,053,000	5,357,000	33	15,877,000	5,357,000	34
1985	19,310,000	6,376,000	33	18,635,000	6,376,000	34
1990	23,302,000	7,667,000	33	21,617,000	7,667,000	35
1995	28,213,000	9,258,000	33	24,795,000	9,090,000	37
2000	34,286,000	11,215,000	33	28,131,000	10,611,000	38

Source: Kenya Statistical Digest June, 1971 Vol. IX No.2.

The high projection labour force will rise to about 11.2 million, whereas that for the low projection will rise to 10.6 million by the end of the century. For both high and low projection this means that the labour force will more than double between 1975 to 2000. In absolute numbers this implies finding jobs for over 6 million people according to high and low projections.

The proportion of labour force to the total population for high projection will be constant at 33% whereas that for low projection ranges from 34-38%.

Assuming that the proportion of labour force in urban areas is equal to that pertaining for the whole of the country, one can then apply these percentages on the urban population projections, as is shown in the table below.

Table 5.1.3. - Urban Population and Urban Labour Force
Projection 1978-2000.

Year	High			Low		
	Urban Population	Labour Force		Urban Population	Labour Force	
		Number	%		Number	%
1978	2,211,000	752,000	34	2,083,000	708,000	34
1980	2,545,000	840,000	33	2,383,000	810,000	34
1983	3,077,000	1,015,000	33	2,836,000	964,000	34
1990	4,910,000	1,620,000	33	4,206,000	1,472,000	35
2000	9,227,000	3,045,000	33	6,870,000	2,611,000	38
Increase 1978-2000.	7,016,000	2,293,000	33	4,787,000	1,903,000	40

In the period 1978 to 2000 the labour force in urban areas is
expected to increase by 2.3 million people according to the
high projection and by 1.9 million according to the low
projection.

The percentage of the marginal increase of the labour force in
the high projection is the same as in the averages for the
various years. In the low projection however, the marginal
increase is 40%, an increasing share of labour force in the total
urban population for the period 1978-2000.

5.2. Employment:

The labour force is the total number of potential available manpower.
At any one time only part of the labour force is gainfully engaged.

No statistical coverage is available for the total employment,
including self-employment in urban and rural areas in Kenya. In
the table below data on the wage employment including casuals is
given.

Table 5.2.1. - <u>Wage Employment by Industry 1972-1975</u>:

Industry	1972	1973	1974	1975
Mining and Quarrying	3,166	3,407	3,869	3,543
Manufacturing	84,804	94,453	101,332	100,731
Electricity & Water	5,148	5,374	5,694	7,742
Construction Transportation Storage and Communication.	45,313	44,079	46,310	45,475
Commerce (wholesale & Retail Trade) Restaurants & Hotels.	47,638	46,575	57,021	53,690
Services	249,252	261,212	306,452	326,774
Total	472,926	496,019	565,115	578,477
Agriculture	246,851	265,356	261,148	240,609
Grand Total	719,777	761,375	826,263	819,086

Source:- Statistical Abstract 1976.

In 1975, only 819,086 people were engaged in wage employment, representing 18% of the total labour force.

5.3. <u>Labourforce and households</u>:

In every household one can assume that there will be at least one breadearner. The potential breadearners (labourforce) can be more or less the number of households, and hence determine the ratio of the potential number of breadearners per household.

Table 5.3.1 - Ratio potential breadearners per household

Year	High Projection			Low Projection		
	Urban Labour Force	Urban House holds	ration potential breadearners per household	urban labour force	urban house holds	ration potential breadearners per household
1978	752,000	553,000	1.4	708,000	521,000	1.4
1980	840,000	636,000	1.3	810,000	596,000	1.4
1983	1,015,000	769,000	1.3	964,000	709,000	1.4
1990	1,620,000	1,228,000	1.3	1,472,000	1,052,000	1.4
2000	3,045,000	2,307,000	1.3	2,611,000	1,718,000	1.5
Increase 1978 - 2000	2,293,000	1,754,000	1.3	1,903,000	1,197,000	1.6

With the high projection the urban households increase has on
an average 1.3 potential breadearners per household. For the
low projection this figure differs considerably, with ~~ 1,6
potential breadearners available for the households increase
over the period 1978-2000. This means, *half* with the low projection
less households will require accommodation and also have a
greater potential of increasing their household income and hence
ability to pay for housing. The determining factor will however,
be the increase of job .opportunities in the period under review
for finding gainfully employment.

General Observations and Recommendations

1. There is no record of the total existing housing stock in the country. The Ministry of Housing and Social Services had made an attempt to compile the public and semi-public housing stock for the whole country. Apart from the statistics for the 22 major towns, (see table 6.1) statistics for the rest of the country are not well documented. It is important that the Ministry of Housing and Social Services works out a methodology and statistical machinery of arriving at existing housing stock. Priority should be put on the task of establishing housing stock

   because it is from the existing housing stock and the quality thereof, that housing needs can be soundly projected. All dwellings need not be counted in the housing stock especially if they are deemed inhabitable. For this reason there is need to define the term house (dwelling) plus the expected practical standards.

2. There seems to be no _reliable_ record of total house production. The Ministry of Housing and Social Services is trying to compile statistics on housing production but this seems to be very taxing on the Ministry's staff especially when the centres concerned are not involved.

3. There is lack of commumication between the Ministry and the local authorities concerning housing issues. The Ministry should be contacting the local authorities regularly to assess the housing situation. This can be done through an annual housing questionnaire to the local authorities.

4. As it has been observed while pre-testing the housing questionnaire, it is important to hace uniformity of the urban population referred to at both the central and local levels.

6.1. PUBLIC AND SEMI-PUBLIC HOUSING STOCK IN KENYA BY TYPE OF DEVELOPMENT AND BY ADMINISTRATION AS AT 31ST DECEMBER 1975. - KENYA

type of development / Housing administered by	Plots		Units				Total Rooms
	O.B.	S.&S	T.P.	Mort.	Rent	Total	
1. Municipal/Town Council							
1. H.F.C.K.			406	17	29	575	2280
2. Others	343	3731	3718	29	31940	35687	68502
2. County Council		779	115		3505	3620	6927
3. Min. of Works 1. Pool					9118	9118	o
2. Institutional					20520	20520	o
3. Armed forces					1455	1455	o
4. Min. of Housing & Social Services.			34			34	o
5. Min. of Finance & Planning			151		800	951	o
1-5 TOTAL PUBLIC	343	4510	4504	46	67410	71960	
6. East African Community (pool)					825	825	o
7. E.A. Airways Corporation					276	276	o
8. E.A. Harbours Corporation					1206	1206	o
9. E.A. Posts & Telecommunications Corporation.					594	594	
10. E.A. Railways Corporation					16700	16700	
11. H.F.C.K. 1. Civil Servants Housing				229		229	1119
2. Schemes (excl,indiv.)				2914		2914	13701
12. NHC. 1. Min. of Housing &S.S.			52			52	261
2. Council			-		369	369	862
3. Others (excl. rural loans)	216		653	3	681	1537	5242
6-12 TOTAL SEMI-PUBLIC	216		705	3146	20851	24702	
1-12 GRAND TOTAL	559	4510	5209	3192	88261	96662	
(ultimately) private plots	13470						
Semi-public + public rental units	88261						

X) to be read with the explanatory notes of the housing stock report

O.B. = Owner Builder
S. = Site-and-service
T.P. = Tenant purchase
Mort.= Mortgage.
Rent.= Public Rental + Staff (Rental)
 - = Zero
 o = not known
blank= not applicable

5. It was obvious from the trips made for the pre-testing of the
   questionnaire that some local authorities were not very
   conversant with what housing involved and therefore neglected it.
   Only the revenue collection from housing was important, and
   therefore other issues of housing such as people on the waiting
   list and the general housing situation were immaterial. The
   Ministry should try to ensure through the Ministry of Local
   Government that housing is given its due weight within the local
   authorities especially with regard to manpower.

6. It appears that housing plicy is formulated from the top (i.e.
   the Ministry of Housing plus the National Housing Corporation)
   without referring to the local authorities. Policy adoption, be
   it social, political or economic, should be flexible to
   accommodate diversity between different places. For example
   Narok in the Rift Valley with its nomadic Masai does not
   approve of any housing scheme that involves individual
   ownership because of the fear that non Masai would take Masailand.
   This could be true of other places similar to Narok. If housing
   loans are to be given to people in different parts of the country,
   consideration should be made on the disparity of incomes and
   building costs to allow for flexibility. For example if a site
   and service plot was allocated to someone in one of the big
   urban centres, this person will find it very easy to sublet, once
   part of the structure is erected and hence raise extra income
   which can be used for the completion of the structure.

Bibliography

1. Kenya Development Plans   1970-1974
                                   1974-1978
                                   1979-1983

2. Bloomberg and Abrams: United Nations Mission to Kenya on Housing, 1965.

3. Ministry of Housing and Social Services, Planning Guidelines

4. ILO, Reports on Employment Earnings and Equality

5. Sessional Paper No. 5 1965/66 on Housing

6. Nairobi Urban Study Group, Nairobi Metropolitan Growth Strategy

7. United Nations, the Housing Situation and Perspectines for long-term Housing requirements in European countries

8. United Nations, Housing Requirements and Demand: Current methods of Assessment and problems of estimation

9. Statistical Abstract 1976

10. Statistical Digests

11. A.J. Marshall, Housing for the Lower Income groups – the Government View a paper presented at the H.R.D.U. seminar on Housing for Lower Income groups May 1977.

12. Third conference on Housing in Africa

13. Economic survey 1974 and 1977

14. German Development Assistant Association for Social Housing. The Kibera experimental self help programm

15. Hillebrandt P.M. Economic theory and the construction industry

16. Wheat on, Milgram, Meyorsen editors, urban Housing

17. Ministry of Housing and Social Services, Annual Report 1967-71.

18. Ministry of Housing and Social Services, Urban Housing Needs in Kenya 1973-78.

19. Hutton: Urban challenge in East Africa, East African Publishing House 1972.

20. Grimes Orville F.r; Housing for Low-income urban Families, economics and policy in the developing world.

21. U.N, methods of estimating housing needs

22. C.B.S. urban Food purchasing survey: Part I – 1977

23. C.B.S. Urban Population projections 1969-2000

24. Ministry of Housing and Social Services. Public and semi public Housing stock in 22 major towns.

25. HRDU, Majengo, Swahili Village.

26. Kenya Statistical Digest - June 1971 - September 1972 Vol.X No.3

27. National Housing Corporation. Guideline' for Administrative procedures for sites and service schemes.

28. Ministry of Local Government, Building Code, 1968

29. Housing Act Cap 259

30. Patrick I. Wakely, Hartmut Schmetrer and Babar Mumtar: Urban Housing Strategies, Education and Realization, Pitman 1976.

31. N.O. Jørgensen, Housing Finance for Low Income Groups May 1977

Table and graphs

List of 105 urban growth centres in Kenya

District	Centre	District	Centre
1. Nairobi	Nairobi	Machakos	Machakos
			Kangundo
2. Central Province			Kilome
Kiambu	Thika		Athi River
	Limuru		Mbooni
	Kiambu		Makueni(Boma)
	Ruiru	Marsabit	Marsabit
	Kikuyu		
	Githunguri	Meru	Meru
Kirinyaga	Kerugoya		Nkubu
	Sagana		Chuka
	Wanguru		Chogoria
Muranga	Muranga		Maua
	Makuyu	**5. North Eastern Province**	
	Kangema		
	Kandara	Garissa	Garissa
	Maragua	Mandera	Mandera
Nyandarua	Nyahururu	Wajir	Wajir
	Ol Kalou		
Nyeri	Nyeri	**6. Nyanza Province**	
	Karatina	Kisii	Keroka
	Othaya		Kisii
	Kiganjo		Manga
			Ogembo
3. Coast Province		Kisumu	Kisumu
Kilifi	Malindi		Ahero
	Kilifi	Siaya	Ukwala
	Mariakani		Yala
Kwale	Kwale		Siaya
	Kinango	South Nyanza	Kendu Bay
Lamu	Lamu		Migori
Mombasa	Mombasa		Homa Bay
Taita/Taveta	Voi	**7. Rift Valley Province**	
	Wundanyi	Baringo	Kabarnet
Tana River	Hola		Eldama Ravine
4. Eastern Province		Elgeyo-Marakwet	Iten
Embu	Embu	Kajiado	Kajiado
	Runyenjes		Ngong
	Siakago		Magadi
Isiolo	Isiolo	Kericho	Kericho
Kitui	Kitui		Sotik
	Mwingi		Londiani
	Mutomo		Lumbwa

List of 105 urban growth centres in Kenya (continuation)

District	Centre
Laikipia	Nanyuki
	Rumuruti
Nakuru	Nakuru
	Njoro
	Molo
	Naivasha
	Elburgon
	Gilgil
Nandi	Kapsabet
	Nandi-Hills
Narok	Narok
Samburu	Maralal
	Baragoi
	Wamba
Trans-Nzoia	Kitale
Turkana	Lodwar
	Lokitaung
Uasin-Gishu	Eldoret
West-Pokot	Kapenguria/Makutano

8. **Western Province**

Bungoma	Webuye
	Kimilili
	Bungoma
Busia	Busia
Kakamega	Kakamega
	Mumias
	Maseno
	Butere
	Majengo
	Khayega
	Kaimosi