

Affordable Housing for Low and Middle Income Earners in Nairobi- Kenya

How can Government facilitate and foster sustainable human settlements in Nairobi-Kenya .



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1 Shelter Situation Analysis

Introduction

The shelter situation in Kenya just like in most developing countries is such that housing demand far outstrips supply, particularly in urban areas. The shortage in housing is manifested by overcrowding and spread of slums and squatter settlements in urban centres and peri-urban areas. In the rural areas the challenge is that of poor quality housing. Kenya's urban housing demand is estimated at about 150,000 units with an estimated annual average supply of only 35,000 while an estimated 300,000 housing units require to be improved annually in rural areas. If factors that constrain housing production are not addressed, the current situation is likely to be sustained or worsen.

Housing development in most urban areas has been dominated by private developers and contractors over the years, with the Government playing a more facilitative role. The private sector being a profit making sector has over concentrated its efforts in provision of housing units for the high income and those meant for the middle income are never affordable for the targeted group. The middle income earners have occupied housing meant for the low income,

consequently pushing them out into slums and informal settlements, and farther resulting in a housing deficit for the low and middle income.

The shelter situation in most low and middle income housing estates surrounding Nairobi's Central Business District which is Kenya's capital city is characterised by low rise old deteriorating buildings, overstretched infrastructural services and illegal extensions which have resulted in urban decay and underutilisation of the open spaces. On the other hand, housing in most high income areas is characterised by single detached one or two storey houses occupying large compounds, ie the bungalows and massionates. This has happened amidst a growing population and scarcity of land for housing and other facilities, leading to a housing shortage and farther to formation of informal settlements.



Kibera informal settlement in Nairobi-Kenya

This proposal is thus designed to give insight as to how production of housing units for the low & middle income earners can be increased, through renewal and densification of existing estates and development of new areas.

Housing Problems and Challenges in Kenya

Various factors have led to the shortfall and dilapidated state of housing and human settlements, the main ones being rapid urbanization, high rate of rural – urban migration, economic decline, high poverty levels, limited access to finance & high cost of finance (interest rates), escalating housing costs and prices, limited research on low cost housing building materials and construction technologies, high infrastructural standards (outdated & rigid building code) stringent planning regulations, and high costs of building materials

1.1 Basic General Data

Geography and Administration

Kenya is situated in the Eastern part of the African continent, between 5 degrees North and 5 degrees South latitude and 24 and 31 degree East longitude. The equator cuts across the country from East to West. The neighbouring countries are Tanzania to the south, Uganda to the west, Ethiopia and Sudan to the north, Somalia to the northeast, and the Indian Ocean to the southeast with a coastline of about 536 kilometers.

Kenya's total area covers about 582,650 km². Out of this, 569,250 km² (97.8%) constitutes dry land while 13,400 km² (2.2%) constitutes water bodies. Approximately 80% of the land area is arid or semi-arid and only 20% is arable. The country is divided into eight administrative units referred to as provinces, and is further sub-divided into districts, divisions, locations and sub-locations as the smallest administrative unit. There are 175 local authorities.

Demography and Health

Kenya's population was estimated at 37.2 million people in 2007, and is projected to increase to 42.4 million by 2012¹. According to the 1999 population and housing census about 19% & 81% of the population lived in rural and urban areas respectively. It was estimated that the urban population grew by 25% in 2007, and by 2012 it will have reached 32%. The population distribution varies from 230 persons per km² in high potential areas to 3 persons per km² in arid areas. Kenya is faced with high dependence burden, with over 50% of the population being below 15 years of age. This has resulted in high dependency ratios placing high demands on social services such as primary education and health care.

On health, Majority of Kenyans do not have access to affordable health care. About 46% of population live below the poverty line. According to the Household Health Expenditure Report of 2003, 44% of Kenyans who fall sick do not seek health services due to lack of finances. Infant mortality rates increased to 77% per 1000 births in 2003, while under 5 mortality rates increased to 115 per 1000 births. Maternal mortality rates are currently 414 maternal deaths per 100,000 live

¹ Kenya Vision 2030 (First Medium Term Plan 2008-2012)

births. Approximately 14,700 women of reproductive age die annually due to pregnancy related complications

Demography

Population	2000	2003	2004
Male in millions	14.7	15.9	16.3
Female in millions	15.5	16.8	17.3
Total fertility rate	4.7	4.9	4.9
Infant mortality rate per 1,000	73	78	77
Under 5 Mortality rate per 1,000	110	114	115

Source:(Kenya demographic and health survey 2003)

Health Institutions

	Hospitals	Health Centres	Health sub-centres & dispensaries	Total	No. of beds & cots	No. per 100,000 population
Total 2002	514	634	3,351	4,499	60,657	19.2
Total 2003	526	649	3,382	4,557	63,407	19.5

Source; Health informationsystems, Ministry of Health (M.O.H)- provisional

Economy

The Kenyan economy is predominantly agricultural with a strong industrial base. The agriculture sector contributes 25 percent of the Gross Domestic Product (GDP) with coffee, tea and horticulture being the main agricultural export commodities while the manufacturing sector contributes about 13 percent of the GDP . Tourism is also a major foreign exchange earner.

Household Characteristics

The average household size in Kenya is 4.4, while the minimum size of housing for a household is two rooms. This is based on the internationally registered average of two persons per room. However, a high percentage of households in the urban areas reside in single room resulting in congestion in residential housing particularly in urban areas and more so in slums and informal settlements as opposed to rural areas.

1.2 Shelter Related Facts and Figures

Kenya's housing stock is characterised by inadequate affordable and decent housing, low level of urban home ownership (16%) and extensive & inappropriate dwelling units including slums and squatter settlements. The housing shortage for low & middle income households is particularly acute in urban areas, with only an estimated 6,000 units (20%) of all houses produced catering for this group. With only 23% of the housing demand being met, an urgent solution is required to fill the existing gap. Of this gap, demand for low income households is 48% of the total new houses required since more than 80% of new houses constructed are for high and upper middle-income earners.

Access to Shelter

Housing stock

The total housing stock as at 1999 was 10.4m dwelling units with about 18% of these being in urban areas and 82% in rural areas. 77% of households in urban areas live in rental housing, while 87.3% of households in rural areas own their own houses. The main challenge of housing in rural areas is not that of adequacy, but quality and lack of infrastructural services. Quality of housing is however dictated by cultural and environmental factors.

Housing Deficit

According to the 1999 population and housing census, the public sector makes minimal direct investment of only 4% of households, while private sector catered for the remaining 96% of households. Though the private sector holds the bulk share of housing construction, it is less responsive to the housing needs of middle and low income as well as the disadvantaged members of the population. This has

resulted in a housing deficit, more so for the low and middle income households in the country.

Occupancy - Persons per room

Arid and semi-arid districts recorded the highest average persons per room with an average of 3.71 and the least average recorded as 1.08. Rural areas registered lower average of persons per room as compared to the urban areas. 1999 census report indicated that most urban households lived in single rooms and ranged between 37% - 67% in Nairobi.

Building materials

Building materials constitute the single largest input in construction and account for about 70% of the cost of housing. Demand for building materials increases with population increase and Kenya is well endowed with abundant natural resources that can be used as basic materials. However, the housing sector is however faced with limited research and information on innovative low cost appropriate building materials, while the existence of inappropriate standards and By-laws has greatly reduced the range of approved materials and building technologies.

Some limited research findings have been done through the efforts of research institutions such as Housing and Building Research Institute (HABRI) of the University of Nairobi and other organizations. However, dissemination and use of the research findings has been minimal due to inadequate funding for the research and dissemination.

Access to and cost of Basic Services/Infrastructure

The infrastructure sector is characterised by a number of challenges that revolve around poor, inadequate & poorly integrated infrastructure, inadequate funding, outdated technology and insufficient technical skills and personnel. This has resulted in over-reliance on one transport corridor, traffic congestion and the accompanying environmental pollution from transport sources. There is also the challenge of over-reliance on hydro power leading to frequent power outages, high system losses, & ever rising prices of imported fossil fuels which are not affordable to the low income households.

By 1999, Only 30% of households had piped water connection. 82.6% of households had access to decent sanitary facilities at the national level. For

lighting, 13.5% of households had access to electricity, while 77.7 of households used paraffin lamps. The proportion of households using electricity for lighting in urban areas was 40%.

Housing Standard

The quality of housing in Kenya is governed by the building code and the Public Health Act which specify the building standards that should be observed. The building by-laws and planning regulations are a pre-requisite for safe, health and sustainable living environments. Laxity in enforcement of the above instruments has resulted in poor housing standards, deteriorating housing conditions and formation of informal settlements.

While there is greater proportion of the housing stock in rural areas, there are more serious quality problems in these areas than in urban areas. Only 8.1% of households in rural areas lived in high and good quality housing, compared to 66.2% in the urban areas. Despite the better housing quality recorded in Urban areas and particularly Nairobi, a significant proportion of households in slums and informal settlements are exposed to poor sanitary conditions and inadequate water supply.

However in the recent past, the issues of slum and informal settlements have been of great concern to both the government and other partners in shelter and human settlements sector, and upgrading efforts currently underway will address the issues of standards in line with the existing instruments.

Housing Quality by Rural & Urban

	High	Good	Average	Poor Quality
Rural	0.9	7.2	82.9	9.1
Urban	26.5	39.7	32.2	0.6

Tenure of Households

In Kenya, tenure issues have revolved around owner occupied and rental housing. Owner occupancy was more prevalent in the rural areas than urban areas, where most households are renters. The 1999 census indicates that 71.5% of households are owners of their dwellings and 28.5% are renters. The high owner

occupancy rate is prevalent in all provinces except Nairobi where 82.2% of households lived in rented units.

Access to and cost of Education

According to the Kenya Integrated Household Budget (KIHBS) Survey of 2005/06, the percentage of population that can read and write accounted for 79%. Over 90% of urban dwellers can read & write, while in the rural areas it is 75.7%. Since 2003, primary education was declared free for all, and this has enhanced the primary enrollment rates nationally.

1.3 Housing Policy

National Housing Policy - Kenya.

The Sessional Paper No. 3 on National Housing Policy of July 2004 was approved by Parliament. It proposes the facilitation by the Government of an annual delivery of 150,000 housing units in the urban areas and quality improvement of 300,000 units in the rural areas. The Government also sees itself as a catalyst by providing an enabling environment for housing actors.

Housing Policy Goal

The overall goal of the National Housing Policy of Kenya is to facilitate the provision of adequate shelter and a healthy living environment at an affordable cost to all socio-economic groups in Kenya in order to foster sustainable human settlements.

Policy Targets

The housing policy targets the following categories:-

- Poverty alleviation
- Public housing
- Urban housing
- Rural housing
- Vulnerable groups

Housing Elements/Inputs In Kenya

The main inputs/elements that determine the success of the above targets and thriving of the housing sector are as follows:-

- Land use planning and management
- Infrastructure
- Building materials and research
- Financial resources for housing
- Management
- Legislative and institutional framework

1.4 Actors in Shelter Delivery and their roles

Housing in Kenya has been delivered through a broad institutional framework consisting of various actors based on comparative advantage as outlined herebelow:-

Role of the Government

The Key role of Government is to formulate and review policies and legislation, as well as ensure implementation of the same

The Private Sector

The Private Sector participates in the construction of housing for all categories of the population for both rental or sale.

Financial Institutions

Financial Institutions provide finance for housing through lending facilities

Co-operatives

They serve as a vehicle for mobilizing both the people and finance for housing especially those in the low and middle income brackets as well as the vulnerable groups.

Professionals

Professionals provide professional advice and guidance to clients in the sector

The Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs).

The NGOs and CBOs mobilize and sensitize citizens and communities on modalities of improving their shelter as well as on their rights

International Agencies

The international agencies support and collaborate in undertaking research, capacity building and financial support

Research Institutions and Academia

The research institutions provide information and technological knowhow .

1.5 Shelter Design

Land Use

The categories of land tenure in Kenya are Government land, trust land, and private land. The tenure system has encouraged individual ownership of land at the expense of communal or group rights. Land use challenges have increased in both urban and rural areas as a result of rapid urbanization, inadequate land use planning, unsustainable production methods and poor environmental management.

Land scarcity and population pressure is responsible for the conversion of marginal lands into farm land by the poor. This aggravates environmental degradation. Land adjudication and registration in the country covers only 1/3 of the country. This is due to slow adjudication process, and inadequate surveying & mapping resources.

Sustainable Land Use and Development

Land use practices in rural areas are largely incongruent with specific ecological zones. Uneconomic land sub-divisions, coupled with poor land use practices are responsible for accelerated land degradation and declining land productivity. In urban areas, proliferation of informal settlements, urban sprawl and encroachment into protected land remain key challenges. Escalation of desertification as a result of land degradation and climate change pose risks to the lives of people living in ASAL communities.

Land is currently governed by many laws, most of which are in conflict and present difficulties in land administration and management. All the above challenges will be overcome by implementation of the National Land Policy which provides a framework for access to planning and administration of land in the country. The Policy will also provide a framework to remedy gross disparities, particularly with regard to gender in land ownership.

Proposed programmes for improvement include establishment of a GIS- based land registry, land information management system, National land use master plan that entails national, regional and local area land use plans through an integrated and participatory approach.

2. Organisation

I work for the Government of Kenya, and specifically the Ministry of Housing. It consists of Seven Departments, and one Semi Autonomous Government Agency (SAGA); the National Housing Corporation (NHC) which is the implementing arm of the Ministry/ Government.

The mandate and role of the Ministry of Housing is to facilitate access to adequate housing in sustainable human settlements including the management of the built-up environment to realize the national development goals and objectives as outlined in Kenya's economic blue print 'the 'vision 2030' and the Millennium Development Goals (MDGs), and particularly in improving the livelihoods of people living and working in slums.

3. Shelter Problem: Unaffordable Housing for Low and middle Income Earners in Nairobi

The housing deficit in Kenya mainly affects the low and middle income earners, mainly because the units are not commensurate to the demand, and the few that are available are not affordable. This group is forced to compete for the houses constructed for the low income, who in turn are pushed out into the informal settlements that are crowded with limited or no infrastructural services.

Stakeholders in the sector have attempted to address this shortage through various programmes, but their efforts have been disjointed, having limited impact. Some of these actors include Government, NGO's, Private sector, etc.

To overcome this challenge, The Government is best placed to influence meaningful solutions to this proposal, due to its comparative advantage over other actors as policy maker & service provider, accompanied by its strong institutional frameworks and networks.

This challenge began building up in the 80's when more people moved to the urban areas and most of the housing projects by world bank and government were halted, in line with global policies requiring Governments to play facilitative role rather than provision of shelter provision for its citizens. Housing production declined amidst increasing household numbers, and the deficit began accumulating gradually. The production of housing units was left for individual owners and the private sector which focused on high income units locking out the low and middle income. This problem has continued to persist to date despite several interventions by Government and other stakeholders.

The problem exists due to the following reasons:-

- Housing developers have focused on high income housing as they are profit making institutions by nature.
- Cost of housing units is unaffordable for the low income.
- There is limited land for housing in the city and the available land is very expensive.
- Cost of building materials is high hindering low income from constructing their houses.
- The low income do not have access to affordable finance for housing.
- Lack of concrete & functional public /private partnerships in shelter delivery.
- Uneconomic low density utilisation of primeland for housing around the city.

4. Proposal for Change and Improvement

Proposal Strategy

Establishment of public/ private partnership between Government and the private sector to have joint ventures in the construction of low and middle income housing units , through urban renewal and densification projects on existing Government land. The Ministry of Housing should identify land designated for

residential use, and target it for this programme which will further translate into a project.

Situation analysis for Urban Densification

Many housing estates around Nairobi's Central Business District that were constructed during pre-independence period have deteriorated over the years, yet they are within very prime areas with very big compounds that are under utilised. Due to increased natural growth, lack of proper maintenance and lack of additional housing units, the estates have deteriorated with illegal extensions and insufficient services resulting in urban decay.

Considering that most of such estates are on Government/ Council Land these estates can be earmarked for redevelopment accompanied by densification. Instead of retaining low rise and horizontal construction, development can be undertaken in a vertical design as either middle and/or high rise to accommodate several housing units within a small surface area, while leaving room for physical and social infrastructure.

A study tour to Holma in Copenhagen-Denmark on Monday 8th September by the shelter design and development participants-2008 revealed the transformation of a once problematic housing area into a good/sustainable housing neighbourhood through appropriate participatory planning and conversion from low to middle rise housing units. Cooperatives were used to finance house ownership.

Needs Assessment Survey and feasibility study

Information should be gathered to determine the size of the target group, their requirements, affordability & feasibility of the project. The residents should be involved in any negotiations from the initial planning stage.

Land Alienation exercise

The Ministry of housing having been charged with the mandate of facilitating quality, decent affordable shelter for all Kenyans, and being the custodian and agency responsible to oversee successful implementation of the housing policy should spearhead alienation of land for housing.

Land set aside for housing should be identified, and this includes both Government and city council land. The programme can also utilise prime residential low density land around the city that is underutilised to construct more housing units through densification.

Joint Venture

Once land has been identified, The Government can enter into a joint venture with a private developer who has funds for the project, then the Government provides the land. The cost of units should however be negotiated to have it affordable for the targeted group. This will be done with an understanding that the private developer foregoes the cost of land, and benefits from tax waivers to minimize their construction costs

Several units will be constructed by the developer and offered to the target group for either rental or sale based on client preference. A build, operate and transfer arrangement can be made for the private agent to recover costs incurred and minimal profit. Another option is to have the two entities share the units on an agreed ratio.

Partners/ stakeholders/ actors and their roles

- Ministry of Housing
- Ministry of Lands
- Office of Deputy prime Minister & Ministry of Local Government
- Ministry of Nairobi Metropolitan
- City Council of Nairobi
- Private sector/ developers/ contractors
- Residents and target groups.

Role of Actors

Different roles will be assigned to various identified partners in the project.

- Local Government and Nairobi Metropolitan- Infrastructure development

- Housing co-operatives and Ministry of cooperatives NCC and Mfi's to organise and register low and middle income with the relevant organisations for savings and access to finance
- Government provides trunk infrastructure & local govt. provides basic services,
- citizens purchase house and maintain neighbourhood.

Selection of project site

According to a study carried out at the rhine valley in Austria, Key factors determining movement of households were confirmed to include population growth, household growth, residential area reserve/availability or built up zoning, regional attractiveness, landscaping, landprices/rents, accessibility and short travel to work, & service supply. With this in mind, the following is recommended.

- Low density estates are well placed due to their proximity to key areas such as industrial area, main markets, CBD, workplace, livelihoods etc.
- The estates should be replanned to accommodate commercial buildings, landscaping, open spaces, green places and a recreation centre to ensure an independent neighbourhood.
- The rent should be controlled to ensure affordability.

The same study also proved that the proposal can also be applied in open space to form a new built area. Land should be identified at the suburbs and infrastructure provided with a starter unit being constructed to some level, then the owners can complete them on the incremental housing approach.

A study tour conducted at Holmbladsgade in Denmark on Monday 8 September 2008 confirmed a successful case study of urban renewal and densification of residential estates through joint venture of public/private sector. Infrastructure was provided with public facilities and the buildings were upgraded. The houses were for both rental and ownership and finance was made possible through cooperatives. This gave way to more middle rise housing units Within the same space designated for housing and in a more orderly manner.

Financing Mechanism.

- Mobilize target groups to register and save with micro finance institution
- Mobilize target groups to form co-operatives in order to access finance.
- Set up secondary mortgage market to ensure liquidity.
- Have income generating programmes and activities as part of the project.
- Involve clients/residents in planning to ensure communal maintenance.

This will improve both the quality of existing housing stock as well as increase housing quantities for low and middle income, while at the same time inhibiting formation of informal settlements.

Settlement Design

- The house Design should be middle/high rise as opposed to single storied
- Design should make provision for mixed land use with commercial buildings on ground floor for income generation activities, and upper floors for residential.
- The estate should have a mix of the low and middle income to promote social cohesion, integration and cross subsidy.
- The estate should provide for open spaces, landscaping , green areas, and play grounds together with all other required facilities.
- The designs should be oriented in such a way as to allow natural sunlight to preserve energy and also allow free circulation of wind and air as well as for security purposes.
- Building materials should be of preference and within affordability limits of clients, while remaining favourable to climatic conditions.

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