

Housing the Urban Poor in Nairobi

From the Slum to Apartments – An innovative Urban Renewal Model



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Situation Analysis

“Small is beautiful .Living in less space can be good for the planet as well as for your bank account.” Wendy Priesultz.

The existence of slums in Nairobi and other towns of Kenya is a matter of serious concern. During the past years, a fraction of slum dwellers have been moved out of their habitations as a result of demolitions. There have also been attempts of slum upgrading (provision of services) but the same have only resulted in permanent slums. Unless steps are taken to make it impossible for new slums to come into existence, the problem of slums will become even larger. For preventing the growth of slums there are three sets of measures to be taken.

- Demolish and enforced municipal by-laws with the utmost strictness and allow no substandard structure,
- Upgrading the slum
- Redevelopment

Of the three, the last option always improves slum dwellers lives. To a large extent there is no alternative to their demolition and clearance, but there may be cases where measures for improvement are feasible.

Basic General Data

The Kenyan Housing sector is characterized by deteriorating housing conditions countrywide arising from demand that far surpasses supply particularly in urban areas. This shortage in housing is manifested by overcrowding, proliferation of slums and informal settlement in urban areas and poor quality housing in rural areas.

Geography and Administration

Kenya is an East African state covering an area of 582,646 sq km and lies astride the equator. Kenya is divided into 8 administrative provinces namely Nairobi which is the capital city, Coast, North Eastern, Eastern, Central, Rift Valley, Nyanza and Western. Both English and Kiswahili are the official languages.



Fig.1 Map of East Africa Region

Demography and Health

Kenya has one of the highest population growth rates in the world with the current population at 32 million people.

Item	Item	2003	2004	2005
Population	Million	32.1	32.8	33.4
Male	Million	15.9	15.9	16.2
Female	Million	16.5	16.9	17.2
Total Fertility Rate	Per 1000	4.9	4.9	4.9
Infant Mortality Rate	Per 1000	77	77	77
Under 5 Mortality rate	Per 1000	115	115	115

Table 1. Source :CBS (2006)

Economy

Kenya has considerable resources that could allow it to grow at a significantly greater rate than it has over the last decade. However, over the past 40 years, the population of Kenya has nearly quadrupled, from eight million in the early 1960s to about 30 million today, diminishing the impact of a \$10.5 billion gross domestic product (GDP) to a per capita GDP of only \$350.

Indicator	2001	2002	2003	2004	2005
GDP Growth rates	4.5	0.6	3.0	4.9	5.8
GDP at Market Prices (Ksh billion)	1,020.0	1,022.2	1,136.3	1,228.5	1,415.2
Wage employment ('000)	1,677.1	1,699.7	1,727.3	1,763.7	1,807.7
GDP per capita (constant) Ksh	33,767	32,549	32,845	33,764	35,045
GNP (Ksh billion)	1,010.5	1,010.9	1,129.6	1,271.5	1,406.9
Inflation Rate (% change in CPI)	5.8	2.0	9.8	11.3	10.3

Table 2. Selected Key economic Indicators (GOK Economic survey, 2006)

Shelter Related Fact and Figures

Access to Shelter

Slum dwellers constitute the majority of the city's population. An estimated 60 % of the city's official total population of **2.5 million** people lives in slums and informal settlements. With an annual growth rate of **5 %**, the city will host 5 million people by the year 2020, of which nearly 3 million will live in informal and often precarious settlements, if current trends continue. "Nairobi Situation Analysis" (Nairobi, 2001)

Housing stock

The country requires development of 150,000 houses housing needs in major urban centres in the country(Housing Development Plan Housing) while estimating average urban annual housing supply of 25,000 units per year, resulting in a shortage of 125,000 units.Out of the 150,000 units required annually, the demand distribution is as follows

- Low income groups - 70%
- Middle Income groups - 25%
- Upper income groups - 5%

Building standards

The average household size in Kenya is 4.4 therefore the minimum appropriate and decent size of housing for households is a two-roomed dwelling. This is based on the internationally registered average of two persons per room.

The Housing construction industry in Kenya requires affordable building materials and use of appropriate building techniques to effectively generate more housing. This should be done through promotion of wider adoptions and application of the revised building by-laws and planning regulations.

Revised Housing Standards

Within the current housing market in Kenyan cities, an affordable housing alternative to wattle and daub slum rooming does not exist nor can be created by adhering to the current government's minimum standard of two habitable rooms (Ministry of Roads, Public Works and Housing, 2003). In excess of minimum standards, slum 'upgrading' or redevelopment attempts to create home ownership of two-bed roomed units for former slum dwellers, that encourages them to let two rooms while occupying the third themselves – an official circumvention of official standards of habitability.

Housing affordability

Currently housing affordability is a major constrain in urban areas than in rural areas with most households (66%) in urban areas renting their dwellings live in single rooms. This is an indicator of affordability rather than preference. On the other hand house prices in urban areas have remained high as demonstrated by smaller proportions of households (24%) who own their dwellings.

Land

Land is a basic input/factor in housing. This should be done through security of tenure in slums and informal settlements where more than 1.5 million people are confined to less than five percent of the total municipal residential area.

In many urban areas of the Developing World inappropriate and restrictive regulations on land use, services provision, and building standards, is a great disincentive to achieving improvement to poor people's livelihoods and shelter.

Access to and cost of Basic Services/Infrastructure

Infrastructure

2005	
Roads, total network (km) (thousands)	63
Vehicles (per 1,000 people)	18
International voice traffic (minutes per person)	5
Daily Newspapers (per 1,000 people)
Telephone mainlines (per 1,000 people)	8
Fixed line and mobile phone subscribers (per 1,000 people)	143
Households with television (%)	17
Passenger cars (per 1,000 people)	...

Table 3 A sample table from the World Development Indicators (WDI) publication

Access to and cost of Education

2005	
Expenditure per student, primary (% of GDP per capita)	23.6
Literacy rate, adult total (% of people ages 15 and above)
Persistence to grade 5, total (of cohort)	32.9
Pupil-teacher ratio, primary (% gross)	40
School enrolment, primary (% gross)	112.2
School enrolment, primary, female (% gross)	109.9
School enrolment, primary, male (% gross)	114

Table 4 A sample table from the World Development Indicators (WDI) publication

Housing Policy

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

Policy changes

The Kenya government has taken a number of positive steps to address the issues of informal settlement as follows;

- A land policy process has been initiated ,including a plan for a highly participatory framework for development of the policy
- The national Housing policy for Kenya was adopted in 2004.

- A National Housing Development Programme has been drafted with the aim of putting the National Housing Policy in operation.
- The drafting of the Housing Act is in progress.

Actors in Shelter Delivery and their Roles

Actor	Key consideration/roles
Government	Resource allocation , management, policy formulation
Local Authorities	Facilitate housing infrastructure and services
Private sector organisations and professional bodies	Identify needs and providing for the housing demand
Development partners and international organisations (UN-HABITAT, UNEP, Shelter Afrique, Sida, KfW, DfiD)	These partners provide expertise and new ideas.
NGO`S, CBO`S, FBO`S and other special interest groups.	Planning, implementation and monitoring the ministry of housing programmes and activities

Table 5

Shelter Design

Planning Regulations

The urban and rural areas of Kenya are facing problems related to poor infrastructure, poverty, environmental degradation and declining urban areas. The implementation of the Physical Planning Act Cap 286 has enabled the public to fully participate in the planning process.

The provision of housing is regulated by various Acts of Parliament and delegated legislation. In the process of planning, designing and implementing housing projects, delays are experienced because of the need to refer to the various laws.

Failed policies and inappropriate legal and regulatory frameworks are fundamental obstacles to the sustainable, pro-poor, urban development (Tannerfeldt G More urban less poor).

Limited institutional capacity in both Central Government Ministries and Local Authorities and inadequate co-ordination of actors often lead to duplication of efforts.

National Housing Corporation. (NHC)

The National Housing Corporation (NHC) was created in 1953 as Central Housing Board by the colonial Government.

The vision of NHC is to have a decently housed nation. Its mission is to play a leading role in developing and facilitating the provision of adequate and affordable housing and related services while conserving the environment and contributing to economic development.

Mandate;

- Lend and grant money to Local Authorities for housing developments
- Make loans available to any company ,society or individual to enable it/them acquire land and construct approved dwellings
- Construct dwellings, carry out approved schemes and provide services for approved schemes
- Maintain land and buildings or estate or interest therein for any housing purposes.
- To undertake and encourage research and development in housing and related matters.

Region	Rental	Site & service	Tenant purchase	Mortgage	Renewal
Nairobi	4,000	8,328	5,486	1,750	660
Coast	2,656	617	387	149	
Nyanza	955	1,003	359	83	
Western	844	874	471	50	
Eastern	206	749	582		
Rift	2,383	3,854	870	373	

Table 8, Achievements.

Growth of informal settlements in Nairobi

The challenges facing Kenya is provision of affordable and decent housing units for low income urban households that forms about 60% of urban dwellers.

Colonial years

The current perceived illegality of informal settlements can be traced to colonial Kenya. Unauthorised settlements emerged on account of the displacement of Africans by the arrival of European settlers.

There were some attempts at providing housing for Africans - E.g. Pumwani in 1923 - but such efforts were limited. (Listening to the poor?, Housing rights in Nairobi, Kenya. (Consultation report) March 2005

Mixed approaches after independence

After independence in 1963, Kenya experienced an increase in urban populations and demand for housing. This was due to continued rural-urban migration; an increase in the population size due to improvements in health services; the expansion of city boundaries; and the relaxation of influx controls.

Structural Adjustment programs (SAPS) 1980S

In the 1986, the Government ushered in the implementation of Structural Adjustments Programmes (SAPS), which were expected to lead to economic growth. SAPS required that the state withdraws from service provision and government subsidies. This affected the poor, who had to dig deeper into their pockets to benefit from cost-sharing services.

Politicization of land and informal settlements: 1990s

In the 1990's 'enablement' was the dominant and official approach to housing policy. Greater emphasis was placed upon the facilitation of the role of other actors in housing in addition to site and- service provision and slum upgrading. The approach was mostly marked by neo-liberal tendencies: the creation of institutional capacity and an open market environment for expanding formal private activity. The approach, largely led by the World Bank, emphasized attending to the needs of the chronically poor while still promoting macroeconomic stability.

Recognition of informal settlements

The government should take the first step to formally recognise the existence and rights of the residents of informal settlements, particularly in relation to their rights to be protected from forced evictions and to have access to basic services.

Once this is done the Government should strive for a long lasting solution in the meeting the MDG`S target 11 through but not limited to the following

- Provision of security of tenure.
- Access to affordable land
- Slum Upgrading.

Slum Upgrading Initiatives in Nairobi

Progress on slum upgrading policy and projects remains very slow. To date there has been no official attempts to establish any national system for upgrading whereby communities who wish to commence upgrading can instigate the process within an official framework.

The only significant step is the Government programme for Integrated Land and Urban Sector incorporates slum upgrading as one of its key components.

Housing Rights in the Upgrading of Commercialized Slums

According to Marie Huchzermeyer (Journal of Asian and African Studies 2008; 43; 19) the Committee on Economic, Social and Cultural Rights, General Comment 4 (CESCR, 1991), identifies seven elements of the right to housing:

1. Security of tenure;
2. Access to services and infrastructure;
3. Affordability;
4. Habitability;
5. Physical accessibility;
6. Location;
7. Cultural adequacy.

Slum upgrading should achieve a balanced realization of all these seven elements.

Past interventions

Kibera High Rise project.

The Kibera High Rise project of the National Housing Corporation (NHC) Was developed in 1990s with the aim of benefiting the inhabitants of Kibera (bordering Soweto). The units were initially intended for the Kibera`S slum dwellers but were allocated and/or traded to the middle class. The targeting problem in this project was due to high-level corruption beyond the control of the NHC.

Kenya Slum Upgrading program.(KENSUP)

The Kenyan Slum Upgrading Programme (KENSUP) was initiated in 2000 through an agreement between the previous Government of Kenya and UN-Habitat and was renewed in January 2003. An early decision was to pilot KENSUP in Nairobi's largest slum, Kibera, which houses over 600,000 people on 110 hectares of land, in 13 'villages' (Government of Kenya, 2004). After a detailed situation analysis in 2001 (Syagga et al., 2001), it was decided to limit the pilot to the Soweto 'village', the south-eastern sector of the Kibera slum, which has a population of 60,000 people (COHRE, 2005b). The Kibera-Soweto pilot project was launched on World Habitat Day in 2004. KENSUP is now undertaking the Kibera Decanting Site Housing Scheme where relocations of sections of the community will be done to create room for infrastructure services so that construction work in the main project can commence.

Pumwani Slum Redevelopment.

Unlike other slum settlements in Nairobi, the Pumwani-Majengo area was originally well planned and orderly. The mud and wattle structures with tin roofs were also well laid out and provided with communal bathrooms and toilets. The entire community was planned with social amenities; however this order of things was overtaken by the later day influx of people from the rural area - turning the place into a slum.



Figure 2. Pumwani slum (phase i in the background)

NHC Involvement.

NHC's proposal of redeveloping dates back to 1983 but due to lack of appropriate funds this did not take place. In November 1986 the Kenya Government approached UNCHS: - Habitat for assistance but no action was taken. It was revived in 1987 with the President initiating the project for the redevelopment of Pumwani-Majengo .

Methodology

The overall plan was to redevelop the slum area without displacing or disrupting the lives of the residents. Luckily there were pockets of disused land in the area on which the first units could be developed. It was decided to construct flats to maximize the land use. The big issue however was how to identify the people to benefit from this 1st phase of the project as the units could only accommodate a portion of the population. It became necessary to come up with a clear and just method of identifying the first lot of beneficiaries.

Pumwani phase II

A Basic 3 roomed unit design was adopted. Each room was accessed independently from a common hallway in tune with the original design of the slum units that allows for subletting while sharing the common facilities. The units were arranged such that as many as 4 units on a floor shared a staircase. This was to minimize costs.

Proposal for Change and Improvement

Pumwani re-development



Figure 3: Aerial plan of Pumwani area

Design options to make housing for the urban low income has been looked at with the aim of improving the housing situation within Kenya.

Architects and other professional in the built environment hold the key to production of affordable houses for low income earners.

Lessons from phase I&II

The successes/failures of phase I&II have been looked at with an aim of learning from their experiences so as to improve in future interventions.

Project Design

The design of the housing proposal is typical of the phase II currently being implemented but with an addition of the one bedroom unit but with similar design characteristics This is geared towards achieving and satisfy the following **aims**, which were set out early while determining the brief. The same were considered as the main criteria for developing design proposals for **affordable housing units** in slum redevelopment initiatives.

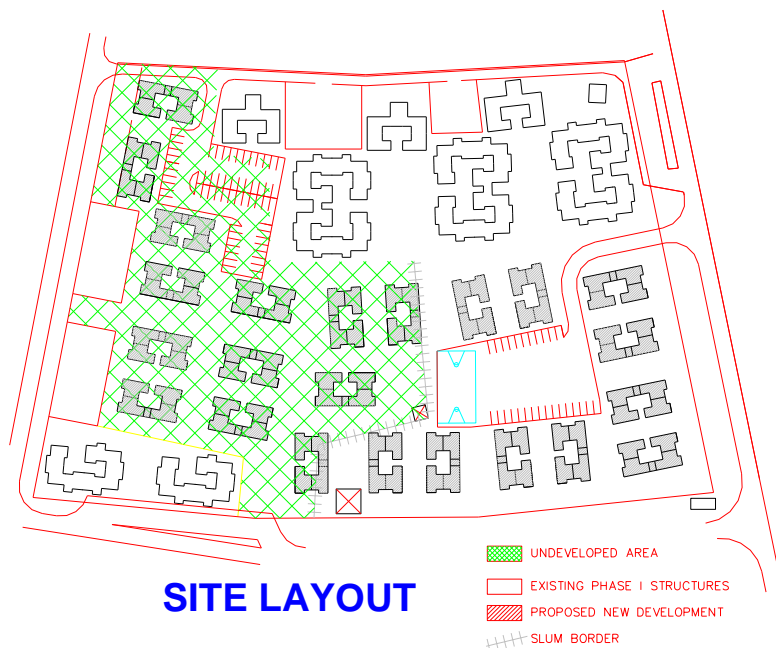


Figure 4: Site layout plan of sector C

- i. Provide **better shelter** for the entire residents of Majengo Sector C.
- ii. **Alleviate poverty and** the poor living environment through sustainable **housing provision.**
- iii. **Control construction costs** and the total expenditure. Designs must employ locally available materials and labour.

- iv. Improve the **lifestyles** of the intended residents in terms of spatial requirements, scale and aesthetics.
- v. Create **flexibility** in planning of residential units by allowing further alterations and additions to respond to the dynamics of the Kenyan family unit.
- vi. Comply with the current neighbourhood plan, zoning requirements and all building code regulations.

In addition to the above the following issue will be taken into consideration based on the user reaction received from phase I& II:

- i. Provison of shopping areas that will also give an opportunity for the beneficiaries to operate business that will be a source off income.
- ii. External re-recreational spaces to enhance the quality of life.
- iii. Enhanced security for the owners.

. The design are a combination of two and three roomed (one and two bedrooms respectively) that will make it possible for the tenants to lease out some rooms as a source of income to supplement the monthly re-payments. (Lessons from Pumwani phase 1&2) and to give a variety to the slum dwellers with different households. The lessons learnt from Holma in Malmo should be avoided so that different types of households can live together. Location density and mix of population in low income housing projects are some of the criteria that matters to promote opportunities for social mobility among poor households(227 De La Espriella C,) The designs has been structured to contribute to urban and social integration instead of segregations for the development of the poor.

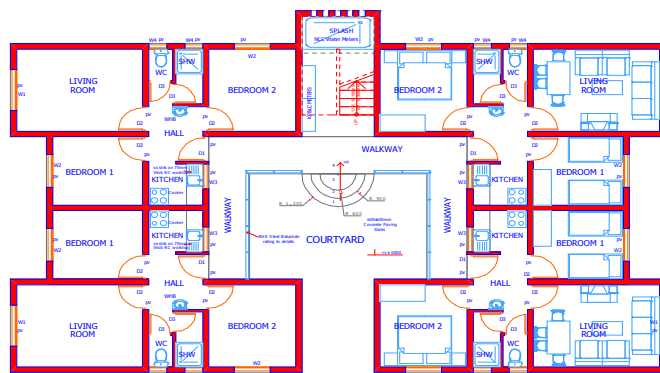
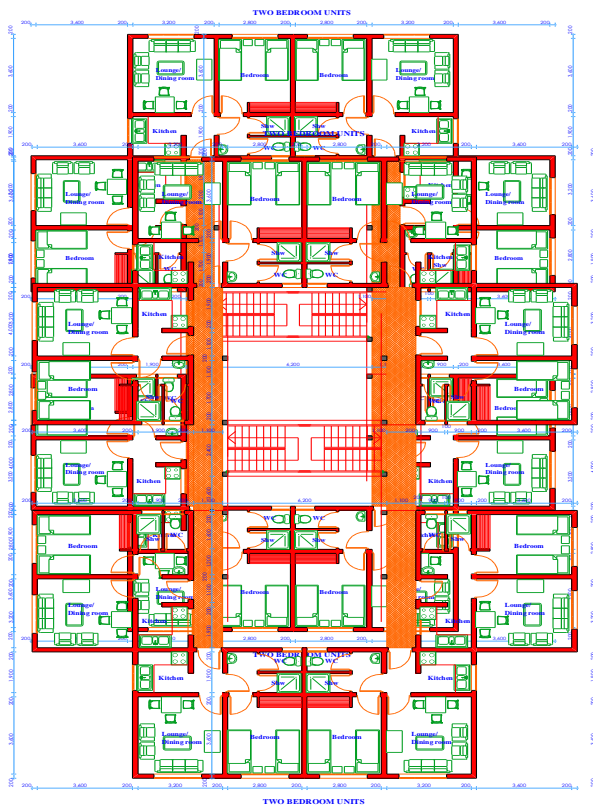


Figure 5: Floor plan

Two Bedroom unit (three roomed house)

GROUND FLOOR PLAN



One Bedroom units

The block of one bedroom consist of 8 units per floor totalling 32 units per block with the designs done such that the principle of sub-letting one room is still maintained.

Figure 6: Floor plan (one bedroom unit)

Shopping areas

The area fronting the street will have shops that will be sold to interested buyers. First priority will be given to those who are currently engaged in economic enterprises within the existing slum. Incorporating spaces for business within the development will be looked at as a way of promoting home based enterprises. This aspect was never considered in the two phases of Pumwani redevelopment yet the beneficiaries of this project depend on small enterprise as a source of income. This is

despite the fact that the site has potentials for business as it fronts busy roads.

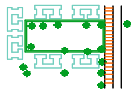


SITE LAYOUT

Figure 7: Site layout plan showing proposed shopping areas (coloured yellow)

External spaces.

The planning will integrate functions that create the conditions for encounters between generations, different cultures for use by different social groups. Fig.



Court yard



Figure 9: Phase II parking areas

Figure 8: courtyard arrangement

The courtyard concept will be adopted to provide a good quality space around the buildings that will be used for socialization and interaction by the residents. Clear pedestrian separation will be done by use of soft and hard landscapes.

Security.

Everybody should feel secure in their immediate surrounding .This will be done through effective planning to control traffic and create a protective environment. While it had been proposed that a perimeter wall `gated community` was to be constructed around the site, design options to encourage interaction and community have be looked at.

Social interactions/Networks.

The residential area will have a rich social life that involves all who live there to promote social networks. A population density will be done to determine if there is a need for a social centre within the entire Pumwani development. The centre will promote social interactions centres as a meeting place for spontaneous and planned encounters that should be operational during the day and night. Lessons from the Kibera Highrise development should be avoided where the community of more than 20,000 people don't have any community facility.

Conclusion

The main challenge in the project is to ensure that the targeted low income earners are the beneficiaries of the housing solutions and will be able to afford the payment of the houses to avoid a repeat of the Kibera High-rise situation. The success of this project will be a model for future slum redevelopment project to be undertaken in the whole country.This will only succeed if the project is affordable for the intended group at the projected costs.

The urban development process must consider the socio-economic cultural aspects that is not opposed to high-rise construction nor are in favour of low-rise constructions and that slum dwellers must be considered not as free riders of urban facilities but an integral part of the planning process.

Housing for slum dwellers and the poor should be part and parcel of ones responsibility and duty ,not a charitable act.

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