Housing Transformations in Nairobi, Kenya: A Strategy Towards Sustainable Urban Development

Washington H.A. Olima
School of The Built Environment
College of Architecture and Engineering
University of Nairobi
P.O. Box 30197, 00100
Nairobi, Kenya
E-mail: wolima@uonbi.ac.ke

Moses Orege Onyango
ROWAMO Consultants
P.O. Box 21225, 00505
Nairobi, Kenya
E-mail: orege25@yahoo.com

Abstract

Sustainable urban development is a phenomenon that has intrigued researchers the world over and sustained a debate for decades. However, the debate has not been engaging developing countries including Kenya as much as it does in countries of Europe and America.

The housing sector in Kenya continues to record unintended statistics despite concerted efforts by both current and past governments. It has been argued that the formal housing production strategies have greatly contributed to both the functional inadequacy of the housing units and poor quality of the residential neighbourhoods, resulting into the new phenomenon of dweller-initiated transformations as a contributor towards affordable housing. The developments in the housing sector calls for the understanding of the role and contribution of appropriate technology in the housing process. In an attempt to transform the built environment, both the built environment professionals and users of real estate units have to exercise control over the physical forms as manifested in the buildings and acted upon by the people as change agents. Growth and change are the basic ingredients of the built environment that result into sustainable urban development. Architecture and planning professions have a role to play in the achievement of sustainable built environment and community welfare. But in Kenya, their impact has not been felt when it comes to provision of affordable housing through application of technology.

Taking the city of Nairobi as a case study, this paper traces both the policies and strategies that have been adopted in the provision of affordable housing in Kenya. The role of architects and planners if any in the achievement of sustainable urban development will be highlighted. The paper concludes that the use of appropriate technology and designs that consider the dweller requirements are prerequisite to attainment of sustainable urban development.

1. Introduction

Housing is both a basic human need and a fundamental human right. The Universal Declaration of Human Rights of 1948 recognizes the right to adequate housing as an important component of the right to adequate standard of living. For instance, Article 25 states that "everyone has the right to a standard of living adequate for the health and well-being of himself and his family including food, clothing, housing and medical care".

In addition, housing is an economic and investment good. The economic dimensions of housing including being a durable, expensive and necessary asset distinguish housing from other goods. As an investment good, housing contributes both directly and indirectly towards poverty reduction through generation of employment and creation of wealth, raising of incomes, improved health and increased productivity of the labour force.

Depending on the rationale and motive for housing provision, housing can be considered as both a public good (social housing provided by both the central government and local authorities) and a private good (investment good provided by private developers) for the realization of profits and adequate return.

Housing has therefore an important role to play in national development. Adequate housing combined with well-planned infrastructure of acceptable standards and affordable cost affords dignity, security and privacy to the individual, the family and the community as a whole. Indeed, housing is not only concerned with the design of a specific number of house units, but rather, the design of a whole environment that provides accommodation, jobs, education and health services among others. All this is to be achieved within a context that is accessible, safe, beautiful and sustainable (Erskine, 1998:22).

2. Nairobi in Context

Nairobi is the capital city of Kenya (see figure 2.1). It is also both the administrative and financial headquarters.

Nairobi is in many ways an archetype of the African colonial city, having purely colonial origins, which shaped its structure and management at the time of Kenya's transition to independence. The different residential locations in Nairobi still depict the segregation based on race and ethnicity brought about by the spatial organization in the early stages of the development of the city.

The city's population has increased considerably from 509,286 in 1969 to 2,143,254 persons in 1999 (Kenya, 1969 and 1999). It is projected that the city's current population is about 3 million. Nairobi's growth in terms of acreage and

population over the past decades has been subject to the drastic urbanization process. Its growth and expansion owes much to natural growth, rural-urban migration, influx of refugees from the neighbouring war-torn countries, and influx of expatriates into the country for various and varied international assignments. Subsequently, Nairobi has become a centre for human conflict where poverty is pervasive and economic imbalance and social injustice are the order of the day. It is city that stands distinct with a trademark of 'development with impunity'.

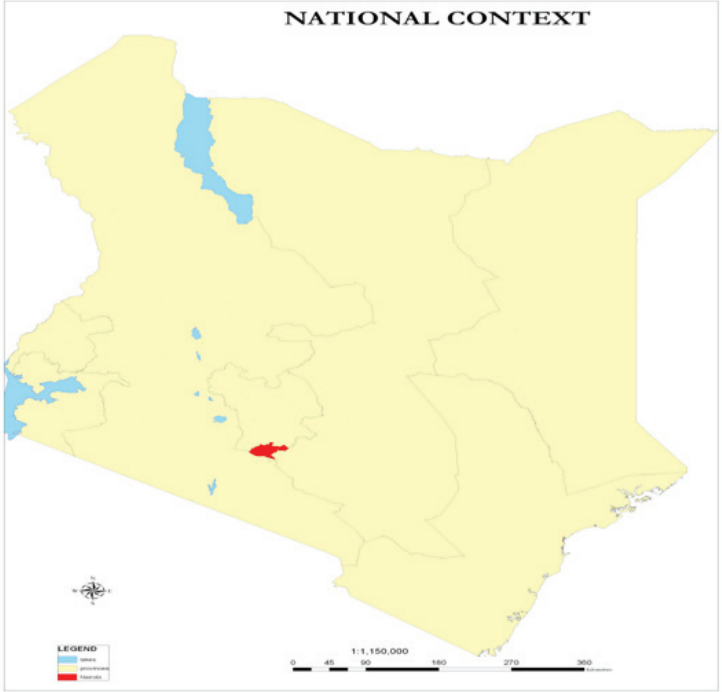

Figure 1: Nairobi in the national (Kenya) context
Source: Ministry of Lands, 2006

3. Conceptual Framework

The housing sector in Kenya continues to record unintended statistics despite concerted efforts by both current and past governments. It has been argued that the formal housing production strategies have greatly contributed to both the functional inadequacy of the housing units and poor quality of the residential neighbourhoods, resulting into the new phenomenon of dweller-initiated transformations as a contributor towards affordable housing. The developments in the housing sector calls for the understanding of the role and contribution of appropriate technology in the housing process. Growth and change are the basic ingredients of the built environment that result into sustainable urban development.

The quality of the housing sector in the modern cities is built on three elements namely:

• Capacity of the city in terms of planning, its institutions and the private sector, to provide the required housing units for its residents and the presence of an effective mechanism which copes with population growth;

• Quality of neighborhood and the ability to unveil the manifestation of the positive human interaction and life; and

• Quality of housing and the efficiency of the housing unit, and its ability to meet the needs of their inhabitants, (Onyango, 2007). *(See figure 3.1)*

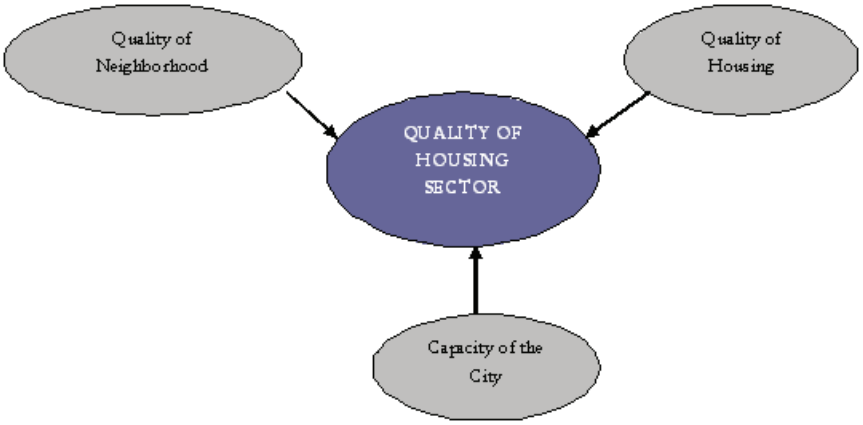

Figure 2: The Pyramid of Housing Quality Source: Adapted from Onyango, 2007

Housing design in Kenya is unfortunately based majorly on the rational and bounded canons of modernity whose basic tenets are efficiency and economy of design. Without much understanding of users' social differentiations, housing professionals have adopted a top-down approach of housing design resulting into regular and formal aesthetics. The products of such linear design are dwellings that do not adequately address users changing needs. Subsequently, fast growing informal settlements are more sensitive to the dwellers than developer built housing.

3.1 Housing Transformations

Resident population is not transient. Once people settle in houses, their use of the spaces and the building fabric provided depends on their behavioural preferences. People tend to transform the places they control. Housing transformations can be attributed to the fact that dwellers always want to live in an environment that reflects their tastes and values. Occupants modify buildings and spaces around them to meet their needs that were not adequately provided for by the designers. Housing transformations in Nairobi can be analyzed based on socio-economic, physical and technological perspectives.

The socio-economic aspects of these transformations is based on the observation that dwellers respond to increased demand for space due to the

expansion of household size; or because of the need to generate income through trade and subletting part of the units. Examples include:

i. Sprawling up of commercial activities along the estates' common spaces such as road reserves, open spaces.

ii. Extensions to building to accommodate more children and relatives.

iii. Propensity to provide for social use functions such as religious buildings, schools, recreational spaces on encroached land.

iv. Provision of ancillary services such as storage, parking, garbage collection points, garages within the courtyards and plot boundaries.

The physical aspects of the transformations include:

i. Change of walls and creation of 'gated' clusters out of the need for defensible spaces.

ii. Creation of circulation arteries.

iii. Superficial transformations to the building fabric, such as relocation, resizing or closure of openings and use of spaces below stairs.

iv. Structural modification of block, like re-roofing to control leakage.

The technological aspects of the transformations include:

i. Use of materials processed manually from site and those sourced from small-scale 'jua kali' industry.

ii. Improvised technologies; not necessarily compliant with the building code or grade two by-laws.

iii. Use of local recycled materials. Some of these materials are used in non-conventional ways; for example iron sheets for walling.

iv. The dwellers define their own supply chain of shelter procurement and construction:

a. No formal contractors (in most cases).

b. The dwellers often act as self-builders.

c. In most cases, the householders engage the services of artisans with apprenticeship in a major contractor outfit and/or basic training in building and construction trades from a youth polytechnic.

v. The technology is transient (temporary) where there is insecurity of tenure i.e. within the encroached public spaces and in rental tenancy in flats. It is however more permanent within individual plot confines.

4. Methodology

This study used both primary and secondary data from various sources. In the case of primary data sources, interviews and discussions were held with key informants including urban planners, architects, and officials at the Ministry of Lands – Department of Physical Planning. Also consulted were City Council of Nairobi, and Residential Neigbourhood Association officials of various organised neighbourhood groups within the city of Nairobi, to get their views with regard to housing transformations. The interviews focussed on the nature, typologies, reasons for transformation and way forward.

Apart from the surveys, this study also relied heavily on review of secondary data, particularly students' research projects and both published and unpublished research papers.

5. Institutional Efforts in Housing Sector

5.1 Evolution and Development of Housing Policy in Kenya

From the first National Development Plan of 1964-1970 to the Ninth National Development Plan 2002-2008, it has been a primary objective of the Government of Kenya to provide decent housing for every family. The long-term objective of the housing policy has therefore been to have a situation where every Kenyan lives in a decent home which ensures health, privacy and security. The minimum requirement for a decent house being a two (2) habitable roomed dwelling, having a floor area of 38.5 m^2 and constructed of permanent materials with a separate kitchen and basic sanitary facilities such as a toilet and shower compartment (Kenya, 1978). The occupancy rate of such a unit should be five (5) occupants. The adequacy of housing would be determined not only by the shelter and contiguous facilities that it provides but also by the entire system of supportive and facilitative infrastructure and services, including accessibility to work place and social facilities and amenities (Syagga and Olima, 1999:50).

From the beginning, the emphasis was on urban housing. Thus the Government of Kenya concentrated on the development and strengthening of housing institutions namely:

(i) Creation of National Housing Corporation (NHC)
(ii) Creation of Housing Finance Company of Kenya (HFCK) in 1966
(iii) Establishment of the Rent Tribunal under the Rent Restriction Act (Cap. 296), and
(iv) Establishment of the Housing Research and Development Unit (HRDU) at the University of Nairobi.

The first National Development Plan of 1964-1970 gave high priority with special emphasis on production of low cost housing and home-ownership schemes to reach as many beneficiaries as possible. With emphasis being laid on delivery of completed housing units in conventional building materials, the rate of housing production was only 25 percent of the requirements, leaving 75 percent unmet as the public sector produced a total of only 9,500 units against an estimated requirements of 7,600 units per year over the plan period.

Despite the economic gains made in Kenya since the attainment of independence in 1963, the standard of housing has been grossly unsatisfactory. Whereas the housing problem in rural areas is that of quality, the housing problem in the urban areas is mainly that of:

- Acute shortage in the number of habitable dwellings
- High levels of congestion/overcrowding
- Construction of unplanned dwellings using substandard building materials
- Inadequate provision of infrastructure, community facilities and services
- Extensive proliferation of slums and squatter settlements (Olima, 2004:9).

The deteriorated urban housing situation has been aggravated by the following factors:

- Rapid urbanization growth rate
- Poor performance of the economy
- Widespread urban poverty
- Escalating costs of providing housing

5.2 Tried Policy Options

The Government of Kenya has over the years, come up with various policy options to achieve the main objective and goal of housing policy. The policies developed and implemented include:

- Delivery of completed housing units in conventional building materials
- Setting minimum acceptable dwelling units
- Demolition of slum and squatter settlements
- Provision of incremental sites and services (SS)
- Settlement upgrading (SU) programmes

The investments in the housing sector since the 1966/67 policy have been minimal and sporadic. The demand for housing still far outstrips supply. In addition, research on low cost building materials and construction techniques has been limited thus not providing viable guidance to the development of the sector. Moreover, stringent planning regulations and high infrastructural standards have been an impediment in the housing delivery system. Poor land use planning and management policy has led to the development of substandard settlements with inadequate infrastructure, services and open spaces.

The estimated current urban housing needs are 150,000 units per year (Kenya, 2004). This level of production can be achieved if the existing resources are fully utilized by the private sector with the enabling hand of the Government. It is estimated that the current production of new housing urban areas in only 20,000 units per annum.

5.3 The Role of Planners and Architects

Urban Planners and Architects have been entrusted with the task of ensuring standards of private dwellings, neighborhoods, and municipalities. However, they face the challenge of coming up with projects to create and improve conditions for mass housing and avoid the emergence of informal settlements in Nairobi, as in many other world cities.

Regrettably, the design professions are notorious for their lack of a sense of social responsibility. Historically the architectural profession probably only became interested in housing when it proved to bring in more commissions, (Prak, 1984:144). Most designers in Nairobi have distanced themselves from housing landscapes that they regard as ugly and messy. Back streets and the notorious “ghetto” townships are ‘no-go’ zones.

The role of architects and planners towards sustainable urban development cannot be looked at in isolation. The role and interaction of other actors - multilateral agencies, central and local governments, private bodies, civil society – and their goals and accomplishments must be reviewed as well. The government in collaboration with the private sector still largely controls housing development in Kenya. Unfortunately, community involvement, empowerment and capacity building are still not a reality, resulting into operative barriers to the delivery of sustainable housing. Sustainable urban development is a powerful framework for developing solutions that improve the quality of life in cities.

6. Findings

6.1 Transformation Typologies

The study revealed that there are four different categories of transformations.

6.1.1 Transformation by Slight Adjustment

This is transformation by functional change rather than the physical change of the spaces especially in the interiors. An example is the transformation in student hostels (Figure 3).

Figure 3: Transformation in student hostels

Hall 6: Main Campus, University of Nairobi: Due to population pressure, the rooms that were initially designed for two students are currently inhabited by three students (even though sometimes up to five students share the rooms informally as "pirates").

More activities such as cooking, laundry and other small scale businesses have been introduced to boost the students' income levels. At the extreme, 'married' students live with their spouses in rooms that were never intended to accommodate families (all done against the university's regulations). The hall is currently accommodating female students though it was designed specifically for male students housing (all learning institutions in Kenya have realized an unprecedented increase in female student population).

6.1.2 Transformation by Addition and Division

This is by increasing the number of rooms in the house to satisfy the needs of the dwellers as well as the owner who sublet their houses (figure 4). Moreover, most additions are done to provide the services that are compatible with the modern lifestyle;

Figure 4: Transformation by Addition and Division

6.1.3 Transformation by Total Conversion

This is where places are completely converted physically into another use;

Bahati Estate

Bahati Estate was developed based on the concept of Neighbourhood Planning Unit (adopted over 40 years ago). Even though it was anticipated that the concept would ensure the provision of clean, safe, quiet and healthy environment for the residents and create a sense of belonging to a neighbourhood, Bahati estate presents a negative precedent for architectural determinism. The spaces that were meant to encourage growth of community have been neglected by the dwellers over time. Instead of being spaces of healthy contact and interactions, the spaces have become potential scenes of insecurity and crime.

Mountain View

Residents "in love with nature" have contravened planning and engineering standards by encroaching onto the pedestrian walkway (figure 5).

In the low income estates, dwellers usually construct 'temporary' commercial structures along road reserves to raise income for paying their rent and meet other costs.

6.1.4 Total transformation by Reconstruction

Due to new housing type, materials and technology, people tend to demolish and reconstruct their dwellings (figure 6).

Figure 5: Mountain View Estate

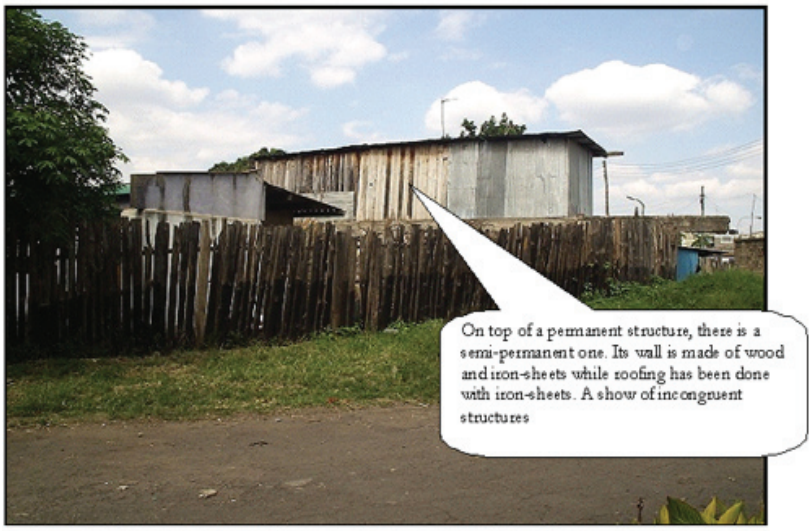

Figure 6: Semi-permanent structure as a vertical extension

6.2 Reasons for Transformations

In Nairobi, alterations or transformations are done to dwelling units to increase accommodation capacity of the house for home residence, for commercial use (Home Based Enterprises), for rental residential purposes and for rental commercial purposes. Dwellers argue that there is "enough" space in the front and back, so most of them find it logical to alter either front or back or both sides of the dwelling unit. This means that most front-house alterations are done so for easier accessibility of the other dwelling users while front-house extensions are majorly for commercial purposes. These extensions of structures are rampant among structure owners due to social, economic/demand driven, physical/design-related and institutional *(see figure 7 below)*.

• *Social reasons* include increase in family size, a dweller's desire to own houses, a dweller's desire to become a landlord/lady and greed for money from landlords.

• *Economic/Demand driven* includes a reaction to shortage of houses in the city leading to high demand for houses and therefore high rental fee. Shortage

of land in the city has led to high cost of land hence scaring most investors to incur an extra cost.

• *Physical/Design-related reasons* include both back and front spaces left in the plots that had "big" enough spaces for extension. Some use front and back spaces to practice urban agriculture and building of multi-storey structures. Some other design-related reasons are proximity to anchor tenants like an urban node, town centre etc.

• *Institutional reasons* include rigidity of the urban council by-laws which are cited as not accommodative to emerging and pertinent issues with regard to neighborhood management and livelihood pursuit. Other institutional factors are high levels of corruption within the urban councils' development control sections.

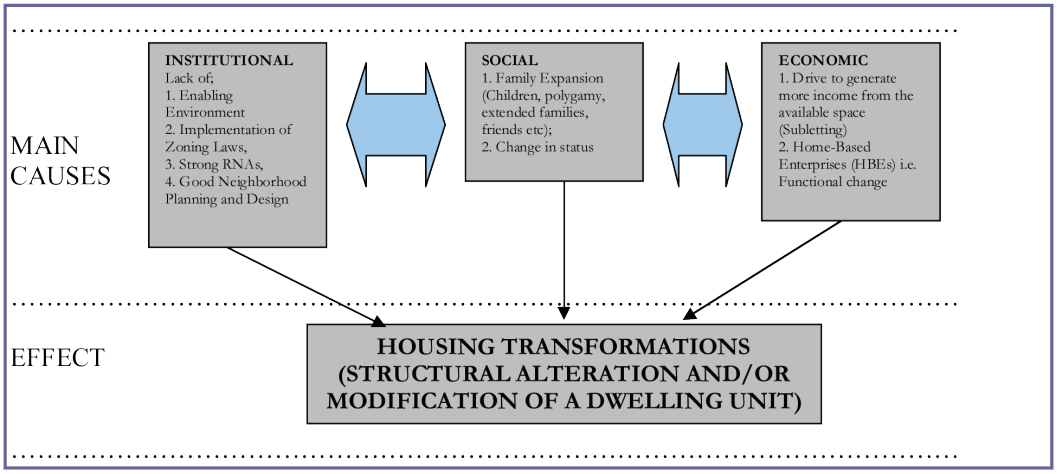

Figure 7: Main causes of housing transformations
Source: Onyango, 2007

6.3 Discussions

- Effects of housing transformation include provision of more living space for the main household, some space for extra households and HBEs. At the same time small and narrow plots impose a need for more living space but the constraints are enormous as such extensions are almost bound to affect ventilation and day-lighting.
- Infrastructure loads are also issues in transformations. As population increases can be accommodated by transforming the existing units rather than moving elsewhere, demand for services on the site increases.
- The norms operating among transformers tend to be locally sanctioned at individual capacity and what is usual in the area. Many building contracts are informal and may consist of little more than a request to build two or more rooms at some specified site on the plot. Thus, the technology used,

and standards met, are the ones that the contractor is used to.

- Regulations in housing development impact on livelihoods in a negative manner by increasing overhead costs in the formal housing. On the positive side, however, they reduce the risk of catastrophe by, among others, insisting on building stability and minimizing disasters due to poor workmanship. However, it should be noted that regulations need not be fully upheld for them to inhibit haphazard development. There are costs to circumventing regulations.
- Housing transformation being one way in which low-income earners strive to get access to housing deserves government support, particularly in the absence of alternative housing supply. Many urban dwellers are beneficiaries of transformations by managing to secure housing (either as tenants or otherwise). The house extensions are being carried out outside the established formal planning regulations. It is in the light of these developments that there is a cause for government intervention to guide housing development processes in informal settlements. Professionals like planners and architects should also assume a role for quality and sustainability to prevail.
- Although the scale of activity shows that transformers can afford extensions, most transformers use their own financial resources in their incremental improvements. However those who depend on own sources to invest often need to adopt phasing as the most effective way forward. Supported by affordable market loan repayment rates, it would greatly increase the efficiency of incremental housing supply if finance were available to low-income households through the formal finance system in amounts tailored to fund housing.
- The most important change is, however, one of official attitude. As long as these remain negative, little improvement can be achieved in the process. If user initiated transformations can be officially recognized as upgrading activities rather than as “building slums”, positive policies could follow and the process could be more efficient for all concerned.
- Enabling the process of transformation especially HBEs rather than harassing them can bring many potential economic and lifestyle benefits without serious danger to the environment.
- Because of the limited degree of housing mobility, adaptations and extensions should be conceived as part of the long-term future of mass housing dwellings in order to respond to the changing needs of the

residents. Extensions could be planned through either the closing off of available private external spaces or through actual extensions of the building structure.

- The rapid deterioration of the mass housing due to over crowding conditions is likely to result in a huge housing stock that needs urgent attention, exacerbating the already critical housing situation. Enabling, facilitating and channelling the potential of the informal sector might be an answer to such a problem.
- The City Council of Nairobi and the GoK (Ministry of Housing) appear reluctant to adopt permissive attitude towards transformers. They have much to lose through heavy handed, unhelpful policies which freeze out potential extensions through the introduction of bureaucratic delays and interference.
- Minimum transformations occur in high-income housing neighbourhoods. This could be attributed to the nature of tenure. Most of the dwellers in such neighbourhoods are owners who usually have a chance to share their spatial requirements during brief formulations.
- In low income areas like Kibera, dwellers are self-proclaimed architects. Their products are self-made. Their materials are not necessarily 'fresh' from the factory.

7. Recommendations

To achieve sustainable urban development in Kenya, architects and urban planners should design urban neighbourhoods and dwellings that have negligible negative impacts on the socio-economic status of the residents and the natural environment. The focus ought to be on the following;

7.1 Physical Infrastructure

Many interventions aimed at improving housing and neighborhoods in Nairobi have focused more on changing the physical environment and less on changing the social environment. Successful housing interventions must provide the physical infrastructure to support social networks and social capital.

7.2 Communication Systems

Communication systems between local, regional and national agencies should be improved. Efficient and effective communications structures are necessary to help architects and planners build trust, make timely decisions, and evaluate how their decisions affect the local communities and end product users.

- There should be transition from a national model implemented by local authorities to a more decentralized model. This would result in more local and area plans with higher quality land use decisions that are more beneficial to the population and the environment.
- An interdisciplinary approach to urban planning must be utilized. The model for sustainable urban development should integrate the ecological, economic, social, spatial and institutional spheres of activity and decision making. Strategic planning should ensure the integration of economic competitiveness with an environmental sustainability and a socio spatial cohesion.
- Housing professionals in Kenya should come up with context-sensitive benchmarks and methods of measuring impact and progress toward improvement to document positive sustainable development practices. This would help them determine whether specific housing projects are efficient or even useful to sustainable urban development.

7.3 Professional Sensitivity

The architects and planners must strive to understand the local autonomy of everyday social and economic life of the city's inhabitants. For any successful project, there must be a clear understanding of social and spatial patterns of the city dwellers. The role of the designers then would be to prescribe ways of sustaining some of the persistent cultural values and functions in a changing urban environment.

- The concept of sustainable housing provision is an alien term to most city dwellers. Hence, it is critical that the architects and planners engage the public to interpret what is required of them to manage the housing stock. In this case, people are not only aware of the urban environmental issues; but are also having the skills to promote sustainable urban development as they meet their housing needs. This could take the form of user needs assessment and preoccupancy "hands on" education. There is need for increased environmental literacy. Community workshops should be encouraged, to provide a platform for housing professionals to learn from the community and also influence housing processes. Stronger partnership should be built between the universities and neighbourhoods.
- While architects and planners create housing, it is the occupants that turn a house into a home. Consequently, it is important that these professionals shift from philosophical to anthropological methods of understanding user needs. There is need for a radical shift to the use of ethnography as a better

approach to addressing community's housing needs. In this approach, the architect/planner would have to spend some reasonable time with a specific community to empathize with their experiences and perspectives. A good understanding of the socio-economic dynamics of a given population is critical in sustainable housing design. For example, an ideal type of traditional housing is based on three elements: the two-generation family, privacy, and the separation of work and residence. These three concepts have gone through tremendous change. Even within a specific community, it is likely to find great social differentiation.

- Integrating an urban housing problem into architectural studio education allows architects the opportunity to provide innovative solutions that mitigate urban desolation. Kenyan architectural schools have placed emphasis on research and teaching but with very little community outreach projects. It would be appropriate to formulate interdisciplinary projects involving students from different disciplines working together as a team.

7.4 Standards

Local planning should leave some urban functions partly undetermined allowing for unforeseen future developments hence ensuring future flexibility. Planning and design of future dwellings will have to provide for adaptability to changing patterns of utilization. Specific strategies may include:

- Design of foundations and roofing to accommodate extra weight and future alterations, respectively.
- Manipulating the design form and structure to allow for progressive *Dweller Initiated Transformations* (DITs).
- Providing room for additional units to share vertical circulation and service core areas.
- The Local authority should streamline planning procedures, standardize building plans and formally recognize appropriate technologies. There is need to revise the housing standards: the building code and Grade two bye laws.
- Reviewing the building and planning standards and regulations (infrastructure, sanitation, densities and ratios, building materials) to allow for use of locally available appropriate building materials. This will reduce the cost of building and provide affordable housing to the low-income earners.
- Developing guidelines that will enhance transformations, with minor controls to improve the use of space and minimize interference with

neighbours, especially with respect to ventilation and daylight.

7.5 Civic education on planning and building by-laws

This should be done to actors in the built environment. These could be achieved through publications in the print media.

The authorities should build capacity of the home owners by sensitizing them on how to respect existing by-laws at the same time be able to build cheaply. This could be done through seminars and workshops organized at the neighborhood level.

The authorities, in the future need to plan for dwellings that will accommodate bigger families, accommodate HBEs and provide working space for the dwellers.

7.6 Residential Neighbourhoods Associations (RNAs)

There is need to enhance their capacity in planning, implementation and monitoring and evaluation as well as in leadership of the RNAs. This will ensure quality and sustainable neighborhood management through participatory process.

10 References

1.Erskine, R. (1998), **Community Spirit in building in Architecture**

2.Kenya, Republic of (1978), **"Human Settlements in Kenya: A Strategy for Urban and Rural Development".** Ministry of Lands and Settlements, Department of Physical Planning, Kenya

3.Kenya, Republic of (2004), **"Sessional Paper No. 3 on National Housing Policy for Kenya",** Ministry of Lands and Housing, Nairobi.

4.Kenya, Republic of (1969, 1999), **Population and Housing Census 1969 & 1999,** Government Printers, Nairobi.

5.Olima, W.H.A (2004), **"Urban Housing Market in Kenya"**, Report to Institute for Public Policy Research Analysis (KIPPRA), Kenya

6.Onyango M.O. (2007), **"Transformation of Low-Cost Public Housing in Urban Kenya; A Case of Umoja Phase I"**, (Master of Arts Thesis, Department of Urban and Regional Planning, University of Nairobi. Nairobi, Kenya).

7.Prak, N.L. (1994), Architects: **The noted and Ignored.** John Wiley & Sons, Chichester

8.Syagga, P.M. and Olima, W.H.A (1999), **"Urban Shelter Problems"** in Obudho, R.A (ed) Environment and Development in Kenya, Kenya National Academy of Sciences.

التحولات السكنية في نيروبي (كينيا):
استراتيجية نحو تنمية حضرية مستدامة

Moses Orege Onyango
ROWAMO Consultants
P.O. Box 21225, 00505
Nairobi, Kenya
E-mail: orege25@yahoo.com

Washington H.A. Olima
School of The Built Environment
College of Architecture and Engineering
University of Nairobi
P.O. Box 30197, 00100
Nairobi, Kenya
E-mail: wolima@uonbi.ac.ke

الملخص:

جذبت ظاهرة التنمية الحضرية المستدامة أنظار الباحثين في كل أرجاء العالم وهيأت مناخا ملائما لنقاش استمر عقودا من الزمان. غير أن هذا النقاش لم يكن في البلدان النامية بذات القدر الذي كان في بلدان أمريكا وأوروبا .

يسجل قطاع الإسكان في كينيا أرقاما غير مقصودة. وعلى الرغم من المجهودات الكبيرة التي بذلتها الحكومات السابقة والحالية يرى البعض أن الاستراتيجيات الرسمية في مجال الإسكان قد أسهمت بشكل كبير في عدم الكفاءة الوظيفية للوحدات السكنية وبؤس بيئة الأحياء السكنية مما أدت إلى بروز ظاهرة جديدة تتصل بالتغييرات التي يبتدرها الساكنون بقصد الوصول إلى سكن قليل التكلفة. تتطلب التطورات في قطاع الإسكان تفهما لدور وإسهام التقانة الملائمة في عمليات الإسكان. على المختصين والمهنيين في مجال البيئة العمرانية ومستخدمي الوحدات العقارية التحكم في الأشكال العمرانية من أجل إحداث التغيير في البيئة العمرانية. النمو والتغيير هما المكونان الأساسيان للبيئة العمرانية وينتج عنهما تنمية حضرية مستدامة.

تلعب مهنتا العمارة والتخطيط أدوارا مهمة قي تحقيق بيئة عمرانية مستدامة ورفاهية المجتمع. ولكن اثر هاتين المهنتين في كينيا لم يكن محسوسا لاسيما عندما يتعلق الأمر بتوفير سكن قليل التكلفة من خلال تطبيق التقانة الملائمة.

من خلال تناول مدينة نيروبي (دراسة حالة) فان هذه الورقة تتبع السياسات والاستراتيجيات لتوفير السكن قليل التكلفة في كينيا. ستسلط الورق الضوء على أدوار المعماريين والمخططين في إنجاز التنمية الحضرية المستدامة إن وجدت. تخلص الورقة إلى انه يشترط استخدام التقانة الملائمة والتصميمات التي تضع في الحسبان متطلبات الساكن من اجل الحصول على تنمية حضرية مستدامة.