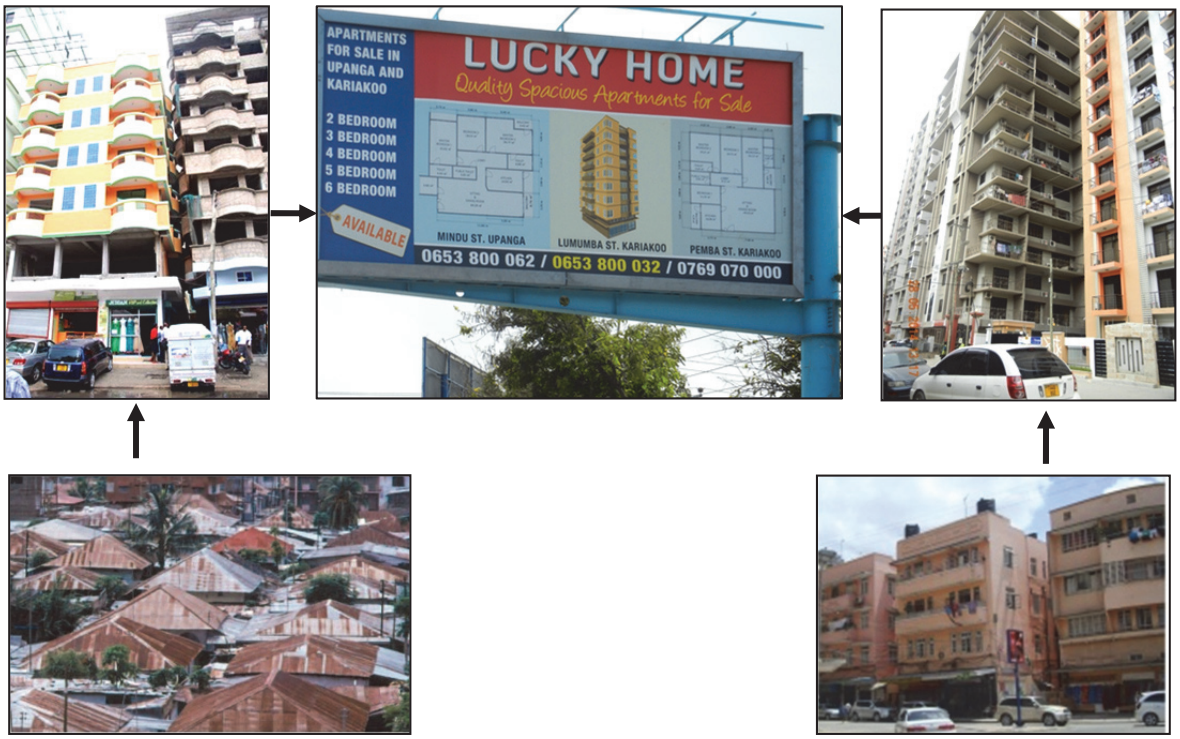
Housing market in redeveloping inner-city areas in Dar es Salaam

Supply dynamics and their effects on the urban fabric



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Housing market in redeveloping inner-city areas in Dar es Salaam

Supply dynamics and their effects on the urban fabric

By

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Declaration

I hereby declare that this work is a fruit of an independent study. As a requirement, appropriate citations have been made to all materials which originate from other sources.

Magina, Fredrick Bwire
Dortmund, June 30, 2016

Dedication

To my beloved family: parents, wife, children, brothers and sisters

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Abstract

Many cities grow by expanding outside existing city boundaries or transform in terms of land use, building types and densities in order to manage the ever increasing urban population. Nonetheless, city growth in built-up areas can be achieved in a vertical development fashion through diverse redevelopment programs to create small sized, manageable and liveable cities of a mixed urban fabric. In reality, the adoption of these programs in the built-up environment suggests new land and housing markets, involving a diverse list of actors, ways of (re)producing housing, prices and rents, and eventually new customers as well as urban forms.

From this background, this work draws attention on the housing market in Kariakoo and Upanga inner-city built-up areas in which conversions of buildings are apparent. In particular, the major concerns were on how housing units are produced and supplied, as well as on the effects of the production on the urban form. In carrying out this study, a sequential exploratory mixed methods research approach was used. A total of 70 interviews with urban professionals, developers, real estate agents, sub-ward leaders, pedestrians, businessmen and legal personnel were carried out. Quantitative data were solicited from archives and physical surveys. Descriptive analysis of both qualitative and quantitative data was engaged and later on a comparison was made to reveal the relationship between housing production and space use.

Results show that a demolish-and-reconstruct housing production system of low-rise and constructing medium to high quality high-rise buildings dominates because of the high demand for residential and commercial spaces. Secondly, the upsurge of a commercialized market and lack of a regulatory framework have led to speculation, rise of land and housing prices as well as rents. Third, because of a notable high demand and weak development control, developers tend to over-utilize plots as a place-making strategy to increase revenues. Consequently, new high-rise buildings contribute to the increasing density of urban space and visibly affect the cityscape. The study concludes that the emerging housing market attracts affluent households back in inner-city areas (re-urbanization) and displaces the former dwellers (low- and middle-income households) to intermediate and peri-urban areas. Moreover, the emerging housing market impels developers to violate official building regulations by over-exploiting building areas while local authorities do not responsibly regulate the development of the built environment.

I will argue that in order to balance and regulate the market, the government is required to clearly define the policy and institutional framework with defined procedures, actors and their roles in the markets. The government is also advised to establish a housing market information database. This will not only enhance the setting of housing prices and rental charges according to standards and affordability levels, it will also ensure collection of property rent by responsible authorities. While financial institutions are required to open up mortgage finance and housing loans, partnerships in social infrastructure provision and improvement are also recommended.

Finally, a call on comprehensive visions for urban development and management is made. The visions encompass providing copies of area-specific land use plans to grassroots institutions i.e. ward and sub-ward headquarters as part of a decentralized planning and governance system. Also, a multi-disciplinary team of urban professionals in building/urban development control should be formed and a routine development inventory should be undertaken. In addition, professional boards ought to develop a zero tolerance perspective on professional misconduct.

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Abbreviations

AQRB	Architects and Quantity Surveyors Registration Board
BRELA	Business Regulatory and Licencing Agency
CBD	Central Business District
CRB	Contractors Registration Board
CRDB	Cooperative Rural Development Bank
DAWASA	Dar es Salaam Water and Sanitation Agency
DCC	Dar es Salaam City Council
DSM	Dar es Salaam
ECE	Eastern and Central Europe
FARs	Floor Area Ratios
FDI	Foreign Direct Investment
FREI	Foreign Real Estate Investment
GDP	Gross Domestic Product
MLHHSD	Ministry of Lands, Housing and Human Settlements Development
NBC	National Bank of Commerce
NHC	National Housing Corporation
NIC	National Insurance Corporation
NSSF	National Social Security Fund
PCCB	Prevention and Combating of Corruption Bureau
PSPF	Public Service Pensions Fund
REDs	Real Estate Developers
RoW	Right of Way
SACCOS	Savings and Credit Co-operatives
SSA	Sub-Saharan Africa
TANESCO	Tanzania Electric Supply Corporation
TBA	Tanzania Building Agency
TIC	Tanzania Investment Centre
TPRB	Town Planners Registration Board
TRA	Tanzania Revenue Authority
TZS	Tanzanian Shilling
UAE	United Arab Emirates
UN	United Nations
UN-Habitat	United Nations Human Settlements Programme
UK	United Kingdom
US	United States
US$	United States Dollar
WB	World Bank

1 BACKGROUND TO THE PROBLEM

1.1 Introduction

Many cities, both in developed and developing countries, experience high urban population increase and high housing demands against limited supply. The central planning economy in these countries has continued to widen the gap between the demand for and supply of housing. After the introduction of market principles, many countries have started to stimulate property and real estate investments (domestic and foreign), particularly commercial investments as a tool to promote economic growth. The booming of housing demand, as a result of population increase, has necessitated land use changes, city expansion (urban sprawl) or redevelopment of some old planned potential and centrally located neighborhoods. Thus property developments in cities are booming too.

However, the prevailing urban planning and development practices have great influence on the supply of and demand for housing. While good practices enhance friendly living conditions and proper urban structure/form, bad practices enhance hostile living conditions such as overcrowding and uncontrolled urban growth. In other words, the booming of real estate investments can affect urban configuration if there is no guidance and control in the course of building development. Simply, the desired urban form is achieved when there is guidance in the course of housing production. Population increase causes high demand for housing and therefore influences changes of land use, building structures and density due to strong competitive advantages available in different locations. These factors keep on influencing the spatial, infrastructural and social characteristics of cities.

In response to urbanization and housing challenges developed countries, some in Eastern and Central Europe (ECE) for instance, have switched to urban regeneration and gentrification programs following various processes of economic and political transformation that occurred post-1989 (Cook, 2010). These processes were characterized by a shift from centralized state planning, toward mechanisms more strongly influenced by the market (Musil, 1993). In addition, Cook (2010) on Prague City in the Czech Republic and Pattaroni et al. (2012) on the Île-de-France region in France note that the relative institutional and fiscal weakness of the states has led to urban regeneration and gentrification programs. Such programs are being mainly dominated by private developers and construction companies who carry out construction of luxury housing developments and office spaces in the inner-city[1], rather than focusing on the provision of affordable housing and maintenance of existing stocks. Sýkora (2005), Temelová (2007) and Cook (2009) observe that the political weakness of the municipal government is encouraging the types of development catering for an emergent Czech and a more established transnational community of elite residents at the expense of the lower-middle and working classes. Consequences resulting from increased real estate activities within ECE include an increasingly fragmented and exclusionary urban landscape, alleged corruption practices between the municipal authorities and the private sector, mainly benefiting large private companies and capital groups (often foreign owned). Also, wider on-going processes of transformation due to liberalization, privatization and internationalization within major cities in ECE countries are

[1] Neighbourhoods, communities or wards located near the city centre (CBD), often within walking distance, characterised by high land values and high densities. In Dar es Salaam, they are located within the 2km radius from the CBD depicted by compact development, comprising of multi-storey buildings with 3-14 storeys and an average of 35% land coverage and a relatively high floor area ratio (FAR) of 1.8 (Lupala, 2010: 11)

combined with the legacies of state socialism (the physical fabric of the city, weak municipal governance and deteriorating infrastructure) to produce a particular set of urban regeneration (Cook, 2010: 625).

Transformation of the economy from central planning into one founded on market principles, spiced by rapid population increase, has also triggered property markets and the reconfiguration of cities of the Global South. In these countries, demand for housing space has remarkably increased, cities are continually being transformed to respond to the demand and strong growth in commercial property markets is experienced (Wang and Wang, 2012; Nguyen et al., 2014; Yan et al., 2014). Regarding population increase in cities, the United Nations (2014: 14-15) note that most global megacities and large cities are located in the Global South. For instance, in 2014 China alone had six megacities and ten cities with populations between five and ten million and it will add one more megacity and six more large cities by 2030. Four of India's cities with five to ten million inhabitants were projected to become megacities in the coming years to make a total of seven megacities by 2030. Outside China and India, Asia had seven other megacities and eleven large cities. Cairo, Kinshasa and Lagos were the only African megacities in 2014, but three more are expected to emerge by 2030. These include Dar es Salaam (Tanzania), Johannesburg (South Africa), and Luanda (Angola); and each is projected to surpass the ten million mark. In Latin America, Bogotá (Colombia) and Lima (Peru) are projected to grow beyond ten million by 2030, joining the four current megacities of the region: Buenos Aires, Mexico City, Rio de Janeiro and São Paulo (ibid).

Owing to higher rates of urban population increase and low housing stock available, governments in developing countries have changed housing policies and programs largely to encourage private property development. In most Chinese, Vietnamese and Taiwanese cities, for example, economic reforms have attracted foreign investments in landed properties (Nguyen et al., 2014; Yan et al., 2014). Domestic, foreign and joint venture high-rise residential and commercial building projects are mushrooming while new urban skyscapes are realized. The case of Ho Chi Minh City in Vietnam, for example, presents two interesting planning accounts emerging from the current property market. First, because under the decentralization policy various investors are allowed to participate in urban land redevelopment, foreign investment companies transform residential land into commercial with higher density and function therefore unlocking the potential value of the land. Secondly, while the master plan aims for a low density centre to preserve cultural heritage, investors have successfully convinced the local authorities to allow high-rise commercial development in the CBD (Nguyen et al., 2014: 419-420). These accounts display developers' openness to making deals with the local authorities within existing social networks and ultimately skyscrapers are built. On this aspect, Ali and Kodmany (2012: 61) caution that if place making is not given due considerations in developing cities, it is likely to endanger these cities. They argue that no matter how crucial tall buildings may find their way into the milieu of the future city's visible artefacts to accommodate the growing world population, they are also likely to turn into eye sores and unwanted burdens on the urban fabric.

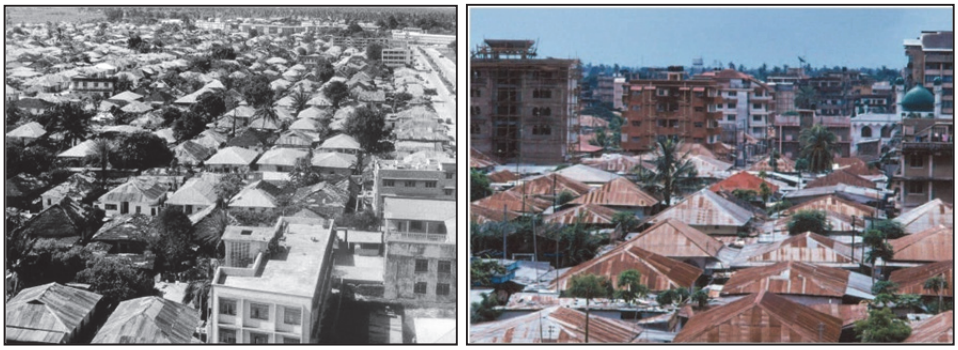
In a similar way, mass rural-urban migration and higher birth rates in large Sub-Saharan African cities have translated urbanization into overurbanization and urban housing crisis (Dooling and Simon, 2012; Leary and McCarthy, 2013). For instance, Lagos, though being the smallest state in Nigeria, had a population of 17.6 million in 2006 compared to 7.7 million in 1991 (Oshondi, 2010). This population is estimated to increase to 21 million in 2015 (NPCN, 2013). While the growth has assumed geometrical proportion, housing to meet the demand is not at a commensurate level, since Lagos alone has a deficit of five million housing units (Oshondi,

2010). The greater Johannesburg metropolitan, with a population of about 3.8 million persons in 2006 (UN-Habitat, 2010: 53) and 8 million persons in 2014 (WPR, 2015), accounts for an acute urban housing shortage because between 150,000 and 220,000 households live in informal dwellings (Ngomba, n.d). As a response to the urban housing crisis, largest cities with high urban population, particularly Johannesburg-South Africa, Lagos-Nigeria and Cairo-Egypt, have applied different place making strategies or approaches. Within the neo-liberalization era, the strategies or programs include slum upgrading, urban sprawl (capital city expansion), urban renewal and inner-city regeneration (Oshondi, 2010; Dooling and Simon, 2012; Leary and McCarthy, 2013; HDA, 2013). The authors observe that attempts have been unsuccessful - often in conflict with official laws and plans, largely due to institutionalized power asymmetries that favour the elites to the detriment of the poor and powerless. They further note that public housing and slum upgrading programs, initially justified to support housing needs for the poor, have all too often been poached by the middle and elite classes. In addition, urban real estate through private, public and community involvement is viewed as the most secure capital shelter to protect against the currency devaluations produced by neo-liberalization. This has decreased land availability, soared housing prices and rents that exclude the poor from the urban housing market.

In Tanzania's metropolitan city (Dar es Salaam) with 4.5 inhabitants; bird's- and worm's-eye views reveal much contrast of land use changes, building types, densities as well as of completed and on-going building projects as a response to neo-liberal policies and urban housing deficit. Lupala (2002: 56) notes that the housing demand (including land for housing) has made some of the old planned areas, i.e. areas developed mainly before 1970 including the city centre, to undergo redevelopment or refurbishment to cope with current needs and opportunities. He further reports that due to the increased demand for housing and change of government policies in some areas, run-down houses are being bought, demolished and rebuilt into multi-storey buildings (ibid).

In the same line of thought, Moshi (2009: 4-6) puts it clear that from its history, Dar es Salaam's CBD was spatially organised into three architectural zones: the former European area (*Uzunguni*), the Indian area (*Uhindini*) and the African area (*Uswahilini*). He observed that all the three areas were undergoing changes in their built form. According to him, in the former European area, a number of plots were amalgamated and land use changes were being effected to facilitate construction of new buildings to accommodate new demands such as more residential houses, office buildings and hotels. The former African area had undergone radical transformations which may generally be described as demolitions and replacements of the old built form with new contemporary forms and architectural style (cf. Figure 1.1).

Figure 1.1: Redevelopment in the former native area



Source: Moshi, 2009: 52

A mile further, the author contends that in the Indian area, the original urban character was still predominant despite demolition and insertions of new multi-storey buildings which depict new architectural styles and uses (cf. Figure 1.2).

Figure 1.2: Redevelopment in the former Asian area

Source: UN-Habitat, 2009 and Mosha and Mosha, 2012: 232

Moreover, THISDAY Newspaper (2009) reports that high-rise buildings continued to spring up in downtown Dar es Salaam and in the suburbs; being driven by the insatiable demand for office and residential accommodation. Consistent with Moshi's and the newspaper's arguments, Mosha and Mosha (2012: 231) record that in planned areas, especially the prime ones of the city, there was a huge housing cityscape transformation brought about by the replacement of single-storey houses with high-rise buildings.

Housing deficit resulting from rapid population increase amidst economic crisis of the government, has shifted the direction of the government from direct supply and funding of non-market housing towards becoming a land role regulator and facilitator (Nguluma, 2003: 2). Due to government's failure in providing housing, opportunities have been created for the private sector to enter into real estate activities. Commensurate with this, UN-Habitat (2003: 39) deserves that the vast bulk of rental housing across the world has been provided by the private sector, increasingly by small investors.

1.2 Research problem

As a result of high demand for land and housing due to rapid population increase as it has been narrated in the above paragraphs, the planned CBD and inner-city prime areas are undergoing rapid morphological and functional transformation of buildings. However, it is fair to say that, on the one hand, very little knowledge and information is known about housing market mechanisms in the formal areas particularly in the on-going redevelopment of inner-city planned and built-up areas of developing economies. On the other hand, much is known about housing market and supply dynamics as well as the spatial predicaments of the informal (unplanned) sector. Therefore, in this work the points of interest were to study the housing market and supply dynamics in redeveloping inner-city areas of Dar es Salaam; and to explore what its impacts are in terms of building types, land uses and densities as a result of the interaction between demand and supply forces. The main assumptions in this study were that housing production and supply in the prime areas involves multifaceted production processes and actors which are driven by the increasing demand for the middle and high income households. The second assumption was that land use and density changes are a sign of over-use of space at plot level triggered by house developers who strive to substantially increase economic profits per building area.

1.3 Research goal

With a notable high demand for housing in urban areas (200,000 units per annum) and limited supply by the government, the private sector has taken initiative to narrow the gap. The introduction of free market policies in the last two decades has, therefore, opened a room for the private real estate sector to operate commercially by constructing, selling or leasing out housing units. However, what is emerging as a result of supply seems to increase while options for housing finance are limited. On the other hand, the increased housing production seems to jeopardize the urban structure which is an important indicator for the violation of housing development guidelines at plot, street and neighbourhood level. Against this background, the main goal of the study is to assess housing production and supply dynamics, and housing price bubbles in the inner-city neighbourhoods of Dar es Salaam's metropolitan area; and the extent at which house developers/suppliers influence the urban form. Finally, the study will recommend ways to improve a proper functioning of housing market as well as to strengthen urban development.

1.4 Main research questions

This portion of research needed to answer two key questions:

1. How is housing, in redeveloping inner-city areas of Dar es Salaam, produced/supplied?
2. What are the consequences of housing production dynamics on the urban form?

1.5 Structure of the thesis

This thesis is organized into four sections and ten chapters. The first chapter is about the background to the research problem. I describe population growth as a global phenomenon towards high demands for housing land and housing space. The chapter also explains the shift of many countries from central planning economy to property and real estate investments as an economic growth stimulating tool and a strategy to solve housing deficit. Moreover, the implication of population growth on land use, housing type and density dynamics are included. Finally, I state the research problem, the main research questions and the ultimate research goal.

Section one, which comprises chapters two and three, is about literature and a theoretical discourse on housing and housing market as well as the context in which the study was conducted. In chapter two, I define the key terms and outline the theoretical discourse regarding urban residential clusters and housing market. Ultimately, the conceptual consensus is generated from literature and theories underlying this study. Also, I will disclose and contextualize the research field where the study was conducted in chapter three. I start by a general overview of urban housing production and supply at country level, the urban housing backlog and responses towards the deficit. Moreover, the main actors, their roles in housing production and the institutions governing the production are included. Subsequently, I present the population and spatial growth, land use change and housing sub-markets in Dar es Salaam City over time as alternative ways of combating limited urban housing production and supply by the government.

In section two, which comprises chapter four, the research design and methodological approach are presented. The chapter begins with explaining all the activities carried out to complete the research and it further illustrates the approach that was adopted. In this case, a sequential exploratory mixed methods research approach combining non-experimental and comparative research was appropriate. Specifically, I used a case study strategy to study the

research questions. The data collection process follows and it consists of two stages. In the first stage preliminary qualitative data, primarily from interviews and official documents, were collected while in the second stage I gathered both qualitative and quantitative data. Whereas in-depth interviews using a semi-structured interview guide and recorders, and official documents generated qualitative data as well as quantitative standards of spatial data, more quantitative spatial data were obtained through physical surveys with systematic observations, photographing and where necessary, sketching was done. Also included in this chapter are the data management and analytical approaches used. Although the study used quantitative data to explore the relationship between housing production and the urban morphology, the nature of quantitative data did not require statistical analytical tools to reveal the relationship. Therefore, descriptive analysis of the data collected from different actors, observations, government administrative bodies and those acquired from other sources was used to analyse both qualitative and quantitative data. Also, discussed in this chapter are data collection ethical issues and confidentiality.

The third section focuses on the empirical findings, analysis and discussion. It constitutes five chapters. Chapter five to eight present the empirical findings for each sub-case. While chapter five discusses the housing market and actors in Kariakoo (research question 1), chapter six examines the spatial effects of housing production/supply and the resulting urban morphology (research question 2). The contents of these chapters are replicated in chapters seven and eight respectively for Upanga. Cross-case analysis is presented in chapter nine whereby the main issues or patterns in the two cases are pulled together – in this way, comparisons and contrasts of the findings are made.

The last section (chapter ten) provides a summary of the study findings basing on the detailed research questions, conclusions, recommendations and reflections on the conceptual framework and methodology.

Section one:

Literature, theoretical dialogue and the study context

2 HOUSING AND HOUSING MARKET: A THEORETICAL DIALOGUE

This chapter provides an overview of central theories or approaches regarding housing market in the urban setting. Before holding a discussion on the central theories or approaches guiding this work, I begin with a discussion on the different dimension on housing, housing market and its main drivers. In this case, models of urban residential structure, which describe different zones in the urban continuum within which house production/supply takes place, are used as the basis for identifying and analysing spatial locations of different land uses and housing types in relation to income groups in the urban continuum. Moreover, the Neo-Weberian approach, which provides a narration regarding household resources in housing choice, is used to understand the type of resources which enhance households produce or access housing units. The pre-knowledge and the theoretical background on housing and housing markets in specific urban areas serve to situate the analysis of the findings in the larger body of literature on housing production systems and the resulting urban morphology.

2.1 Different dimensions of housing

Before introducing what the housing market is, it is worthy to briefly reflect upon the concept of housing because various (mis)interpretations exist. IHS (1993) observes that the concept of "housing" has more meanings than the narrow and confined understanding of it [housing] being simply a place where people live. Rather, it is being expressed to include not only the economic and social functions but also auxiliary services which are pre-requisites for the living within it. Turner (1967, 1968 & 1982b) sees housing as not just a shelter, but a process and an activity. According to him, housing should be seen as the physical characteristics and the meaning for those who use it. Consistent with Turner's arguments, Kemeny (1992) and Mwapilinda (2002) point out that housing is not just about dwellings but also relates to location and social frameworks. Their argument emphasises the importance of facilities and services such as roads, drainage channels, water, waste disposal and security of tenure that affect the site on which a house is built. Mwapilinda (2002) further argues that in the past, the two concepts (house and housing) were used interchangeably by many researchers and writers conceptually reducing it to a structure for one's protection. This is a new string of the argument that pleads for a more complex concept of housing. The components of housing have invariably included shelter, safety, sanitary, security, privacy, services, representation of status, employment, total environment, socio-cultural, human settlements, work places, living environment, etc. (IHS, 1993). The concept can also be viewed as a material component which provides shelter, home, privacy, working place and financial security (ibid).

From the foregoing, it is reasonable to argue that housing as a concept ought to embrace not only buildings as shelters but also the allied services such as roads, water supply, spaces between buildings and the overall neighbourhood environment. However, it has values attached to it which include: use values, technical values, economic values, productive values and strategic values (Ndyuki, 2001; Zhang and Rasiah, 2014). On the aspect of use values, this is particularly critical for the dwellers as a constitutional basic human right; while technically it is viewed as a type of land use especially in town/urban/spatial planning. Economically it is viewed as a commodity with an exchange value. The latter is more relevant to real estate operators and also it has a productive value e.g. income generation from renting. Moreover, strategically it is a tool for social promotion e.g. status and entry point for migrants in urban centres (ibid). As such, these

values have a role to play in the housing market, particularly regarding questions of what has to be planned, where, when and how it has to be planned. Location, design, construction and fitting into the environmental, social, cultural and economic fabric of communities are factors that influence the daily lives of people, as well as health, security and well-being of city dwellers. Furthermore, the long life of dwellings as physical structures affects present and future generations (UN-Habitat, 2012: 3).

Housing becomes most functional and valuable if certain considerations are taken into account. These include what kind of housing has to be planned, where it should be planned (location), when does it need to be planned, who should plan it and how it should be planned. Franklin (2006) has extensively discussed these considerations. He argues that constructions of new housing are heavily influenced by factors such as the current and projected housing demand or need (Franklin, 2006: 69). As such, the increase of housing units is affected by allocation of land for housing and the availability of infrastructure services in the location. In this aspect, for local authorities to secure some public benefits through private sector housing development, Franklin (2006: 65) insists that considerations regarding the availability of services such as playgrounds, open spaces, schools, public transport, supermarkets and leisure centres are important. These services help in the marketing of the area, rendering them an attractive investment for speculative house builders (ibid: 115).

Planning for housing is achieved through urban planning and design processes which involve responsible urban professionals such as urban planners, architects, land surveyors, land valuers at central or local government agencies; each with a specific role to play (Franklin, 2006: 68). How housing should be planned is also linked to state planning mechanisms and institutions which include planning regulations, laws and standards for housing provision and development (ibid). Commenting further on this aspect, Franklin argues that planning for housing is achieved through the land-use planning system at central government level, by employing legislation, regular planning policy advice in the form of circulars and planning policy guidance notes. At local levels, local authorities are expected to take these into account when preparing development plans and deciding on their rationale for the granting of planning permission for new development (Franklin, 2006: 68). Undesirably, the political persuasion and leadership of local authorities, which constantly keep on changing, are sometimes directly opposed to the policy goals of central government (ibid).

While urban planning officials with the requisite technical skills and training advise on the content of plans and the merits of planning applications, it is local councillors as democratically elected representatives of the people, who make final decisions in established committees (Franklin, 2006: 68-69). Healey et al. (1995) and Carmona et al. (2003) stress that such discretionary and variable powers result in a situation where different local authorities interpret national policy guidelines in different ways, and pursue different strategies in relation to the plan implementation process. In the long run, this means that in both developed and developing world, plan preparation and implementation processes are affected mainly by political interests, which gives rise to planning disasters and losses of resources.

2.2 Housing market

Housing is a form of real (estate) property. Real property consists of land and all things permanently attached to it such as buildings, structures and improvements that can be owned or possessed (Ling and Archer, 2010: 2). It therefore means that, real estate includes not only homes, but also places of work, commerce, worship, government, education, recreation, and

entertainment i.e. the physical, natural and built environments. It also includes a wide range of business and institutional activities associated with the development, purchase, use, sale of land and buildings (ibid).

Property can be a tangible asset or an intangible asset. Tangible assets are *physical* things, such as automobiles, clothing, land or buildings, while intangible assets are *nonphysical* and include contractual rights (e.g. mortgage and lease agreements), financial claims (e.g. stocks and bonds), interests, patents, or trademarks (Ling and Archer, 2010: 2). Furthermore, the term *real estate/property* can be used in three fundamental ways. Firstly, its most common use is to identify the tangible assets of land and buildings. Secondly, it is used to denote the "bundle" of rights (formal or informal) that are associated with the ownership or access to and use of the physical assets. These rights over land particularly the formal rights, as De Soto (2001) cements, can in turn help land owners/occupiers access credit markets. Finally, the term may be used when referring to the industry or business activities related to the acquisition, operation and disposition of the physical assets (ibid). However, legal provisions classify real property according to the way the property is used such as residential or commercial.[2] Basing on the above general description, one can find two types of real property markets: land and housing markets.

According to UN-Habitat (2010: 4), a land market is an environment where land seekers or buyers and land owners make exchange on land within a framework of institutions, social practices, relationships, regulations and organizations. North (1991: 98) defines institutions as the "rules of the game", and organizations and firms as the actors or players. Land markets also influence how people access land for different uses such as agriculture, commercial, residential, institutional, recreational, etc. Taking into account the likeness of land and housing assets, housing market is, therefore, an environment where house seekers (renters or buyers) and house owners or developers make exchange of value for value of the available housing stock within the market structure or framework. In other words, it is a situation whereby house developers or suppliers (who intend to sell or rent out their properties) and willing buyers or tenants meet to make housing transactions at a given market price/rent.

Observations made by Tinsley (1997: 5) indicate that housing markets offer a wide range of housing products to serve a broad range of preferences. Furthermore, she puts it clear that like any other market, housing markets are also often considered segmented or have multiple sub-markets, and each sub-market is subject to a variation in its set of supply and demand constraints. She identifies two housing sub-markets: informal and formal. On the one hand, the informal housing sub-market is typically characterised as generally inferior in quality, of questionable tenure security and in non-compliance with the regulatory system. On the contrary, the formal market, which is a concern of this study, would be in compliance with the law and enables the protection of property rights (ibid). The general observation drawn from the definition is that housing markets involve a range of processes such as legal procedures (for the formal market) and social norms (for the non-formal market) in accessing land and finance for housing construction. Also, the market involves actors with different roles and motivations. However, despite the different sets of housing market, formal and informal spheres have similar characteristics due to the nature of the product. The first characteristic is that housing is both a consumption (use value) and an investment good (economic/exchange value). Secondly, it is

[2] https://www.lincolninst.edu/subcenters/significant-features-property-tax/CustomReport.aspx?id=273

immobile and hence location is a significant factor; and thirdly, housing tends to consume a considerable portion of the household budget (Tinsley, 1997: 6).

2.2.1 Real estate markets and other markets: are they different?

Different scholars maintain that real estate markets differ from any other markets. Bourne (1991) argues, for example, that the market for housing differs from the market for other commodities in the sense that in the housing market, the production of housing is slow and subject to many laws and regulations. Rothenberg (1975) calls the many laws and regulations "public constraints". The other argument is the typical life span of built structures over several decades (Rothenberg, 1975; Mulder, 2006: 403; UN-Habitat, 2009: 2). In agreement on housing durability; Tinsley (1997: 9), describing housing as a commodity, stresses that housing is usually a far more durable product than most industrial equipment and therefore its structural value does not change much over time. Tinsley (1997), and Ling and Archer (2010: 13) in the study on the nature of real estate and real estate markets further find out that housing is immobile insofar as it is consumed at specific locations. The locational attributes are also part of the consumption equation since immobility is closely related to employment, thus employment ought to be located within a reasonable radius or distance to housing area.

The other distinguishing characteristic is multi-dimensional heterogeneity. In this aspect the arguments are based on the fact that housing comes in a variety of packages and thus it has several sub-markets, different housing attributes such as number of rooms, bathrooms, swimming pools, etc. which all affect the price and thence buyers find a range of traits that best satisfy the price they are willing to pay (Tinsley, 1997: 9; Ling and Archer, 2010: 13). Last but not least, housing is so expensive that hardly any household can just draw out a chequebook and buy or rent a home without adequate considerations of various options and interests. Housing does not comprise just producers and consumers in the housing market; instead there are also prominent players including landlords, developers and financial institutions (Bourne, 1981; UN-Habitat, 2009: 2).

On top of these distinguishing characteristics of housing from other commodities, Tinsley adds convertibility, capital intensive and transaction costs. She emphasizes that although housing is durable, it can still be modified, transformed or converted to respond to current market situations, for example, building additional rooms. The large amount of capital needed in housing construction requires interaction with capital markets. For the transaction costs, there are substantial costs in moving from one unit to another which include search costs, looking for a new unit since the market is localized and contracting costs. Others include legal obligations and documentation for selling, buying or renting a unit, and the physical cost of moving (Tinsley, 1997: 9). Tinsley contends that these characteristics illustrate the decisions that are met when entering the housing market. Each household entering the market has a different set of preferences and a different budget line (ibid).

Kombe and Kreibich (2000) and McLaren et al. (2007: 1-4) state that land as a form of real property, is not like other commodities that can just be bought and sold since it is an immoveable asset. Buildings on it can be dismantled and moved elsewhere, but the land on which they stand cannot be moved. Land markets also exist when and wherever it is possible to exchange rights for agreed amounts of money or services rendered and hence only the rights to use the land can be bought and sold. The other distinguishing factor is how land market is regulated. They insist that land markets are generally regulated through land tenure and land administration systems (ibid).

Finally, land markets must operate within a framework of law that is accepted by all parties (Simpson, 1976). For instance, in an attempt to access land for housing development for any type of use, one must first understand the dominant land tenure system in a specific society, the procedures and actors involved in the land acquisition process with respect to the existing laws and regulations which govern it.

2.2.2 Drivers of the housing market

> *"the market for housing is, like all markets, subject to the forces of supply and demand. To say this is not to say that the authorities must never intervene but, rather, that any intervention must take account of the forces of supply and demand"* (Harrington, 1972: 53).

In the light of the above quotation, housing market follows the principle of demand and supply. Hou (2009: 11) affirms that all being constant, the increase of income and household number drives the demand for housing thus raising housing prices, whereas new investment in housing increases housing stock thus lowering prices. In a similarly cosmetic vein, Grimes (1976: 40-81), and DTZ Consulting and Research (2007: 25) observe that the way housing markets operate is determined by a number of drivers some of which shape supply others affect demand. The supply driven factors include those which aim at making profit [increasing economic value] out of the investments put up by developers in the provision of housing for different intentions; sale or rent/let out. The demand-driven factors include satisfying social needs [use value] particularly for renters and sometimes economic value for buyers. Moreover, there are also other generic factors, which to varying degrees, impact on all housing markets. These factors include housing need and housing provision (Wan et al., 2010: 5).

However, it should be noted that these drivers are highly associated with and/or affected by possession of resources or assets. Rakodi and Lloyd-Jones (2002: 10-14) identify five most important assets: social capital, physical capital, financial capital, natural capital and human capital. The social capital involves the relationship among people who live together and the resources within it are relations of trust, common rules, norms, sanctions, connectedness, networks and groups while the physical capital consists of environmental infrastructure and social services such as housing, water, energy and transport. The financial capital represents the resources available to households such as pensions, remittances, savings and credit; and the natural capital includes natural resources such as land, water and other common pool environmental resources. The human capital involves the number of people available to work, their health status, their skills and education which they possess (ibid).

Supply driving factors

The supply side factors are those that are driving the type, size and density of new housing that is being supplied to the market or that which is in the development pipeline. They also involve all factors of production directly involved in the construction and maintenance of housing as well as the provision of management, marketing, finance and insurance services (Grimes, 1976: 82). A clear list of the main housing supply factors is underscored by Strassmann (1982), Grimes (1976: 42-60) and FTI Consulting (2012: 2) to include land in terms of tenure, location, price, availability of financial resources, services already available or to be provided and mode of transport. Others include construction cost and options in building techniques, use of labour (Grimes, 1976: 48-56), market structure and conduct including the growth of larger and more

dominant firms as well as innovation skills which include the constraints to investment in innovation skills (FTI Consulting, 2012: 2).

Thomas (2006: 17-18) analysing property/site argues that almost anyone with any involvement in real estate must have heard the phrase that the *"three most important things in real estate are location, location and location"*. Jansen et al. (2011: 67-68) share this statement by postulating that only location counts. In their study on how housing developers, agents and buyers or tenants in the housing market consider location in making choices in different municipalities in the Netherlands reveal location as a variable that can be deconstructed in functional, esthetical and social attributes. The conclusion they made in their study is that in many instances people have fairly strong location preferences in municipalities.

In acknowledging the importance of location and accessibility of housing units in housing supply, Arc Minnesota and University of Minnesota (2000: 5) claim that it is obvious for developers to make sure that housing, its spaces and appliances are accessible to the users. As a matter of fact, the idea they are trying to put forward is the relationship between housing location, services available and mobility. Together with Grimes (1976: 44-45), they further stress that houses built in good and accessible locations have higher values than those located in inaccessible and with unpleasant locations. These areas include those with high levels of crime and with improper and inefficient social services. The argument being made is that location and accessibility are certainly important because house developers would like to provide quality housing which would fetch the best market price with respect to customers' housing choice criteria. Consistent with this argument, Hughes and Stuart (2007: 17-18) study of market rent formation in the UK confirm that location and accessibility are key determinants of rental value.

Strassmann (1982) and FTI Consulting (2012: 2) argue that access to land and type of land tenure, and finance including the management of risks over the financing cycle and financing options available to firms are important factors for housing supply. As long as real estate development requires huge investment capital, real estate developers need to acquire land as well as finance for housing construction. With regard to land, Grimes (1976: 42) stresses that land is very essential for housing development. He further insists that access to land is guided by the type of land markets that exist, and land price is the major factor for determining its use. Differences in land prices basically reflect variations in terms of land use and accessibility in the CBD and other centres of work opportunities (ibid). For example, by comparing land price, services available and location one finds that well-located, serviced and amenity-rich land commands the highest price (Grimes, 1976: 43). In conformity with Grimes's position on access to land, Strassmann (1982) and FTI Consulting (2012: 2) assert that the land acquisition and/or change of land use is a process involving actors and procedures applied in specific local areas which ought be followed by land seekers.

There are cases where plots have been subdivided and areas surveyed but the plot sizes are not able to accommodate the upcoming housing projects. In such cases, Grimes (1976: 43) and Thomas (2006: 17) suggest additional land for development purposes. This implies that in built-up areas, in which most cases plot sizes are small, two or more plots may be acquired and merged if the project to be carried out is huge. For the developers, this is important in order to adhere to the planning standards and development regulations such as plot coverage, number of storeys to be put up and the site set-backs just to mention a few. The importance of the local planning policy enables housing growth by making land available and ensuring sustainable development. Factors for the proper supply of housing are not only limited to access to housing land and its size, but also where land is located.

With regard to financial resources in housing supply in developing countries, Grimes (1976: 56-57) contends that any construction activity involves costs which may not be afforded by individuals or investors. He admits that housing finance in developing countries suffers from disabilities which are common to all types of long-term finance and that financial systems are underdeveloped and beset by government restrictions that limit the volume of long-term finance. According to him, the long-term institutional financing agents include life insurance companies, pension funds and savings banks which are often subject to interest rate ceilings, sometimes are a limiting factor towards accessing these resources for low income earners (ibid: 57). He also lists down other methods of supporting housing finance such as the provision of subsidized lines of discount for housing by central banks and the imposition of portfolio restrictions (Grimes, 1976: 59).

Demand driving factors

In reality it is obvious that each household or family requires a specified minimum standard of housing services according to what the households or families can afford to pay for. Resulting from this argument, demand for housing is driven by a range of factors including population change, economic capacity and household aspirations (Lansley, 1979: 47-56; Dubois and Grootaert, 1986: 13-17). Simply, the factors may be grouped into two main classes: demographic trends and socio-economic.

Population change and urbanization

Mulder (2006: 402) emphasizes that the dilemma of the population forecasters illustrates the complex way in which population and housing are interrelated. Her arguments are based on the fact that urbanization, in terms of population growth and particularly the growth in the number of households, leads to an increase in housing need and/or demand. Quoting Clark et al. (1984) and Lansley (1979: 47-49), she argues that the link between population and housing is obvious due to the fact that people live as households, and households need housing (ibid: 403). As the demand increases, individual house providers or suppliers may be required to transform the current housing stock or urban authorities to institute urban housing transformation programmes so as to add to the existing housing stock and ultimately cater for the increasing housing need/demand.

While cities are regarded as engines of growth and development, one must recognize that they also have their downside. One major impact is the increasing need or demand for housing land and housing mainly for residential and infrastructure, especially in cities of developing countries. The UN 2003 Global Report projects that approximately 2.825 billion people will require housing and urban services by 2030 (Nercua, 2009: 1). Likewise, countries in Sub-Saharan Africa (SSA) face enormous challenges because of rapid population growth and increasing urbanization. Latest data show that SSA countries are projected to have urban growth rates above 3% until 2030 (ibid). Due to population increase, one can note its side-effects such as urban sprawl and gentrification processes which increase physical densities i.e. land coverage[3] and floor area ratios (FAR)[4].

[3] The extent of plot covered by the building(s) or structures and it is expressed in terms of percentage. It is actually a ratio of the built-up area over plot area

[4] A ratio of the gross floor area (GFA) of the building and the area of the plot/site on which the building is erected. For example, if a building has 8 storeys and the area of each floor is 500m^2, the GFA of the building is 4,000m^2. If the site area is 600m^2, the FAR is 6.7.

Economic capacity

Franklin (2006:163) notes that whenever there are more favourable economic conditions, there is a booming housing market. In line with Franklin's ideas, Grimes (1976: 63) and Lansley (1979: 48) point out that the distribution of income of a city affects the affordability of housing by different income groups in terms of tastes and preferences. Due to these circumstances, the private sector is willing to step in and take on the risks of development of the multi-storey structures whose costs are afforded by a new generation of professionals (Franklin, 2006: 163).

Whilst the local economy is a main driver for the housing market, the level of education of the population has important implications for the effective demand for housing. From the academic discussion presented above, one can drive that in a growing economy, household heads particularly those with skills and employed in the highly paying formal sectors, tend to spend more on housing than low and unskilled people, usually employed in the informal sector within the same locality or in different localities. Dubois and Grootaert (1986: 15), commenting on this contrast in Abidjan City, reveal that modern sector employees tend to have high expenditure on housing and other goods and services than those in other cities which have weaker economies. They further explain that Abidjan is characterised by a large workforce in the private and government sectors as compared to other cities in the country, whose residents are mostly employed in the traditional and agricultural sectors (ibid: 13).

In agreement with the link between the demand for housing and jobs in terms of appropriate skills and education, Franklin (2006: 163-164) in his study on housing transformations in Exe Vale and Keeling in the UK reveals how the original designs for low-rise buildings were individual interpretations of newly emerging building types. As such, the original low-rise buildings were transformed into high-rise buildings for the working class. The author concludes that a transitional 'youth' housing market has arisen, in which those most in need occupy the worst and most precarious housing, and are often at risk of homelessness (Franklin, 2006: 180).

Household aspirations

Location

Housing, as viewed as a tangible asset, constitutes the physical components of location and space. Hence, the aspect of an area, where the house which is on the market is located, is an important aspect. Backed by affordability levels and other considerations such as liveable space per household and service level; location (in the CBD, inner-city, intermediate[5] or peri-urban[6] areas) of houses is central and highly considered when people choose where to buy or rent houses (Grimes, 1976: 74; Ong and Sing, 2002). On top of location, how much in-door and out-door space the house occupies are other important considerations that customers take seriously when making housing choices (Grimes, 1976: 74; Ling and Archer, 2010: 4).

[5] Areas located within the transition zone. Densities, land values and land use intensity are generally lower than in inner-city areas but higher than in peri-urban areas (Kombe & Kreibich, 2000: 50); located within 2-15km radius characterised by low-rise single story buildings with 37% plot coverage and 0.37 FAR (Lupala, 2010: 12)

[6] Transitional zones located in the outskirts of the city, beyond the 15km radius (Lupala, 2010: 12). Land for farming and low density settlements of appr.10 houses/ha competes with that for urban related functions such as housing. They are also referred to as zones within which the most recent and on-going expansion of urban development are taking place. In Dar es Salaam, they are located 0.5-9km from the city built-up area (Kombe and Kreibich, 2000: 51; Lupala, 2002: 88)

Other characteristics that households consider are physical and they include the age, size, design and construction quality of the structure as well as the shape and extra natural features of the land. Ling and Archer argue that the physical and location characteristics that are required to provide valuable real estate services vary significantly by property type (Ling and Archer, 2010: 4). For commercial uses, locational characteristics of commercial properties may involve visibility, access to customers, employees, or the availability of reliable data and communication infrastructure. For residential property, Arc Minnesota and University of Minnesota (2000: 5) highlight four general considerations that people take into account while choosing to buy or rent homes. These include location, housing features, social and personal considerations as well as housing expenditures and benefits.

Neighbourhood and important specific proximities

Arc Minnesota and University of Minnesota (2000: 6) note that people choose neighbourhoods that offer specific characteristics of importance to a preferred lifestyle. They enumerate many characteristics that define neighbourhoods which include community "personalities," inclusiveness/isolation, political and social tolerance/intolerance of diversity and/or community activism/conservatism (ibid). On the aspect of neighbourhood and its location, Hughes and Stuart (2007: 21) find that employment levels, percentage of professionals, education and crime, for example, are variables that people can use to measure neighbourhood quality. Furthermore, they conclude that low levels of crime and high levels of education might indicate a high quality neighbourhood. In addition, Arc Minnesota and University of Minnesota (2000: 6) assert that neighbourhood considerations may also be important in different ways to different people. Many people are interested in what communities have to offer: parks and recreation programs, churches, schools, libraries and so forth. While this is the case, to persons that transportation outside the neighbourhood is difficult and time consuming; for them neighbourhood commercial resources such as stores and restaurants are often important and hence they may wish to be close to such community resources. This implies that the neighbourhood physical environment and features are quite important some whereas others prefer the activity of an urban environment.

Housing/property characteristics

Desired amenities, attractiveness and cleanliness

Dubois and Grootaert (1986) and Arc Minnesota and University of Minnesota (2000) confirm that people desire different amenities in their housing. Their arguments are based on the fact that often the absence of a single highly desired feature can substantially lower one's satisfaction. For example, the Arc Minnesota and University of Minnesota (2000: 6) attest that among the features that have such weight for many people are showers, air conditioning, microwave ovens, washers and dryers, gardens, porches, decks and balconies. On the side of attractiveness or cleanliness, they had a view that much of what is regarded as attractiveness or cleanliness is too individualistic to specifically define. But among most people, it means a pleasing physical layout that is freshly painted in preferred colours and is reasonably clean and tidy.

In Abidjan, Dubois and Grootaert (1986: 17-19) observe that most important amenities which have more influence on housing demand are water supply and source of light. Using water supply as a housing demand criterion, people choose where to buy or rent homes with respect to water supply system in place. In this regard, access to water may be from a personal or collective tap on the national water distribution system, purchasing from a merchant or vendor, fetching from a public standpipe, well or directly from a river or lake. As far as electricity is concerned,

considerations are on whether the source of lighting is a hooking-up to the national distribution grid or relying on other means such as the use of generators, kerosene lamps, flashlights or candles.

Single or multiple housing units

On this aspect, more emphasis is on housing structural characteristics (Orford, 2000; Watkins, 2001). Some people view a single detached housing unit as important; for others there are clearly recognized (sometimes unrecognized) advantages in multiple units housing (Arc Minnesota and University of Minnesota, 2000: 6). Hughes and Stuart (2007: 17) refer to this variable as property type (terraced, detached, semi-detached, flat, etc.) while Dubois and Grootaert (1986: 7) call it type of housing, and thus the variable is correlated with property size (amount of housing) and the number of bedrooms and bathrooms.

The advantages of each are relatively obvious in dimensions such as privacy, shared space, noise, social contacts and informal monitoring, factors of location, neighbourhood and proximity. The availability of single vs. multiple units housing also varies greatly from place to place as housing costs do, the possible need for roommates/housemates, choice between renting and buying and other factors (Arc Minnesota and University of Minnesota, 2000: 6-7). Hughes and Stuart (2007: 17) commenting on the aforementioned consideration add other features that may prompt people to choose either to buy or rent a house or for housing developers, as a determinant for the value of rent. These include whether the property is furnished or not furnished, tenancy details (for rental properties) and property condition.

Social and personal considerations

Roommates/housemates

Traditionally, people choose with whom they should live in the same house or apartment basing on certain criteria and interests. This statement appears to be in line with the proposition made by Arc Minnesota and University of Minnesota (2000: 7) that living with other people can sometimes be difficult and stressful as well as immensely rewarding. According to the authors, the decision often requires substantial attention and discussion to determine which, how many, and under what conditions, people will share a living space. Ideally, when people consider living together they have interpersonal experiences or other indicators of compatibility. It is important that all parties who consider sharing a housing unit become equally involved in considerations of their ability to enjoy and benefit from the experience (ibid).

Housing expenditures and benefits

Affordability and stability or flexibility

Hughes and Stuart (2007: 21) observe that income and unemployment are some of the economic variables that are used to measure the demand side of the housing market and are more relevant at a national level for forecasting future trends. In theory and practice, income is strongly related to type of employment that one has and the two variables may be used to determine housing choice, which Grimes (1976: 63) terms as income-housing cost relationship. Therefore, these variables (income and employment) imply that individuals can be stable or flexible in making choices on the type of houses they would like to buy or rent. In other words, as income decreases, households tend to look for houses whose price or rent matches with their economic (financial) ability and vice versa.

Commenting on this fact, Arc Minnesota and University of Minnesota (2000: 7) assert that in reality any housing decision takes into account the maximum amount of disposable income that is available for housing; and the primary decision in housing selection is whether to rent or buy. In addition to the obvious financial considerations, the relative desire and/or need for stability or flexibility are of primary importance. Moreover, they rightly observe that if there is uncertainty about the likely length of stay, then the flexibility of renting has distinct advantages. For persons who do not have access to personal transportation, purchasing a home can tie one to a particular neighbourhood and may limit access to new job opportunities and social involvements. As a rule, stability is relatively more important if a person has a well-developed social network in a neighbourhood (ibid).

2.2.3 Housing need

In most cases housing need is the quantity of housing required for households who are unable to access suitable housing without financial assistance. Therefore, it clarifies the amount of housing space needed based on specific family socio-economic conditions and cultural norms. It includes the type and quality of housing necessary to accommodate households currently lacking their own housing, living in housing which is unsuitable or inadequate or those who cannot afford to buy or rent suitable housing in the open market (DTZ Consulting and Research, 2007: 25). Aduwo et al. (2013: 3) argue that when a household's housing conditions do not conform with the established norms and lifestyle as a result of changing needs over time in the family life cycle such as increase in household size (e.g. arrival of new babies, elderly relatives, etc.), it is likely that what is called "housing deficit" occurs. Some indicators of housing need as DTZ Consulting and Research (2007: 95) observe include:

- homeless households living in temporary accommodation, and
- inability of households to afford the purchase of property at entry-level (lower quartile) market prices on the basis of their current income

Parallel to these arguments, the UN-Habitat (2001) and Wan et al. (2010: 1) argue that housing is one of the major human rights and needs that each individual deserves. It is also one of the basic social conditions that determine the quality of life and welfare of people and places (UN-Habitat, 2012). Moreover, Wan et al. (2010: 1), referring to the Maslow's Theory Hierarchy of Needs, contend that in addition to security, food and others, housing forms the foremost important needs at the lowest among the five levels. Campbell et al. (1976) argue that housing is considered as a key determinant of the quality of life that can be measured at individual, household and community levels in the life cycle. Despite the fact that housing is a social need, Van Weesep (2000) stresses that housing gives occupants an opportunity to develop a desired way of life. Its location determines opportunities for work and access to service and facilities and many people are sensitive to the physical and social characteristics of a residential environment when they choose a place to live in (ibid).

Reflecting on this literature one observes that, unlike housing demand which is the outcome of economic ability, housing need is a socially driven phenomenon since it is a social need of an individual or family regardless of the individual's or household's ability to pay the associated costs. DTZ Consulting and Research (2007: 95) opines that given the scale of housing need, there emerges a need to prioritise in terms of future housing provision. However, housing need is just a

social need and it is not always or it should not necessarily be associated with economic limitations to afford housing market price or rent. In reality, among the needy for housing due to a number of factors, there emerges a small group of individuals or households which can afford buying or renting without subsidies. This group, because of its affordability levels and willingness to pay for the housing costs, goes directly to the market. To conclude, households with financial difficulties in meeting the market prices and/or rent require housing subsidies (housing provision through government efforts) and other forms of social housing while those without financial constraints do not require subsidies.

2.2.4 Housing provision

Housing provision may be a state driven intervention in helping households, in most cases the low-income, which are economically unable to meet the housing market price (simply with affordability problems), to access housing in the social rented sector or make interventions in the private rented sector. Bengtsson (2001) identifies two alternative options for the state to assist their citizens through housing provision if housing provided in the market is generally perceived positively:

- *Firstly*, to allocate housing specifically to households, those who are unable to provide for themselves in the general market.
- *Secondly*, to intervene in the functioning of the general market in order to make it more likely to respond to the housing needs of all households.

The affordability problems can also be solved by the state through two major ways: through the provision of rent assistance to those in the private rental market and through the provision of income geared subsidies to those in public housing (Turner et al., 2009; Wan et al., 2010: 6). The authors further argue that many middle-income households may also not be covered by housing assistance programs in most countries. On the reverse, study findings on affordable housing within the middle-income households (with professional, managerial or technical positions) in the major cities and towns in Malaysia show that the middle-income households were left on their own to face the challenge of entering home ownership (Wan et al., 2010: 6).

Concluding remarks

From the literature, it is obvious that the housing market is a function of housing demand/need, and housing supply. However, the key point to note is the idea that the key drivers of the housing market are housing demand and supply since they have more influence in the functioning of the housing market; housing need has a substantial contribution. To summarise this relationship, it is argued that housing developers of certain housing type (suppliers) always consider the potential buyers or tenants and proper location where the would-be customers can enjoy the products. In the same way, housing consumers consider the type of housing produced and the specific location, its accessibility and mobility in making housing choices.

Strassman (1982) on effective demand for housing and housing finance explicitly notes that dwellings are linked to convenience and accessibility to employment centres and other urban activities such as schools, shopping, health care facilities and other places which are important to households. In other words, the author emphasizes the relationship between the location of dwellings or residential areas and other uses in terms of mobility patterns. He further argues that

for many years the amount and cost of space, and the distance of journeys to work were considered the key determinants of residential choice in theories about different income groups in developed countries (ibid).

2.2.5 Main actors, their roles and motivations in housing market

Ball (2002) notes that residential development process is inherently complex; involving many agencies and individuals who must consult and cooperate in order to achieve a satisfactory end product. The concept of Structure-Agency Institutional Model by Healey and Barrett (1990) cited in Zhang and Rasiah (2014: 59) helps to understand the nexus between the roles of players in real estate market, as it postulates the role of each player, ideas, strategies and interests so as to form a network of interdependent relationship in urban development. The model converges with the concept of Structure of Building Provision by Ball (1998), as it expounds the connection between agencies and markets.

As far as actors are concerned, Franklin (2006: 68) records that some come from the public (government) and others from the private sector; some are professionals while others have political interests. He enumerated the actors as it has been pointed out earlier to include landowners, developers, land agents, financial institutions, consultants, architects, surveyors, valuers, and central and local government agencies. Ideas of Healey (1991: 224) cited in Hennerberry and Rowley (2002: 96) insist that among these players, developers are the key coordinator and catalyst for development. The work of Keogh (1994) equally opines that developers are the nexus of the occupier, investment and development sectors of the property market and they play a crucial role in interpreting the requirements of occupiers and investors; and translate them into built form. The general functions of the actors in the process include brokering land deals, securing financial backing, accessing grants and negotiating the parameters and rationale for development. The role of the public sector (the central government) in the process is to produce regular planning policy advice in the form of circulars and planning policy guidance notes while local authorities are expected to take these into account when drawing up development plans and deciding on their rationale for granting of planning permission for new development (ibid).

On the other hand, the political persuasion and leadership of local authorities may directly oppose to the policy goals of central government (Keogh, 1994). As such, it is local councillors, as democratically elected representatives of the people, who make the final decisions on land allocation, the content of plans and the merits of planning applications prepared by planning officials. Finally, such discretionary and variable powers result in a situation where different local authorities interpret national policy guidelines in different ways, and pursue different strategies in relation to the plan implementation process because of the power of politics in decision making processes (Franklin, 2006: 68-69). These decisions may, in a long run, have effects on the housing market. He further argues that in the private sector, given the centrality of finance and profit making, it is business intelligence, competitiveness and market awareness that bring success (ibid: 68).

A far as real property markets are concerned, the main participants, their roles and motivations include but not limited to[7]:

Owners/Users: These are owners as well as tenants. They purchase houses or commercial property as an investment, for own use/occupation or utilize it as a business. This means that their

[7] http://en.wikipedia.org/wiki/Real_estate_economics#Overview_of_real_estate_markets

motivations are both use and exchange values. The other group consists of owners/landlords. This group consists of investors and they are motivated by generating income from the properties. They do not use or occupy in the real properties that they purchase; instead they rent out or lease the property to someone else.

The other group of actors is that of real estate developers who engage in housing production for sale or letting out and their motivation is both sales price and rent. While renters are pure consumers whose motivation is the use value, developers construct buildings which results in new or additional products for the market. Basically their interest is on sale price and therefore they are motivated by an exchange value. The last group is that of facilitators which includes banks, real estate brokers, lawyers, government institutions and others that facilitate the purchase and sale of real estate. In this case, bankers, for example, target on mortgage interest and the motivation is the exchange value and risk while government institutions seek redistribution value through for instance taxes e.g. capital gain tax.

2.3 Theoretical perspectives

The study revises a number of theoretical approaches which help to explain or study the housing market phenomenon within the urban context. At the end, the most relevant is/are selected as guiding theories for this work. The choice is inevitable because theories serve as a lens through which the researcher observes, measures variables and finds answers to the questions that are posed (Creswell, 2009: 49). As outlined in the beginning, the study on housing market is framed from literature, urban residential structure models and approaches regarding household housing choice.

2.3.1 Models of urban residential structure

Concentric models of urban residential structure

Homer Hoyt's sector model

Being a land economist, a real estate appraiser as well as a real estate consultant, Homer Hoyt (1895-1984) developed an influential approach for the analysis of urban land uses, neighbourhoods and housing markets. His theory on urban structure developed in 1939, conceives development of a city in sectors. Hoyt modified the concentric five ring model which had been propagated by the urban sociologist Ernest Burgess in 1925 (cf. Figure 2.1) by accounting for the spatial arrangement of social groups in cities in a series of rings with respect to major transportation routes, as Figure 2.2 illustrates.

His model suggested that major cities evolved around the nexus of several important transport facilities such as rivers, canals, roads, railways, sea ports and trolley lines that originated from the city centre. He hence theorized that cities tend to grow in wedge-shaped patterns or sectors from the CBD, centred on major transportation routes. This means that areas with high levels of access commanded high land and housing values. According to Hoyt, commercial activities would concentrate and remain in the core of the city while wholesale and manufacturing industries would develop in a wedge surrounding transport routes. Beyond industries, residential zones would develop following the same pattern (wedge-shaped). The residential sector of low-income households would border the light manufacturing or ware housing sector characterised by high traffic volumes, noise and pollution and hence make these areas less desirable to live in. The middle- and higher-income households would locate away from the industries.

Figure 2.1: Burgess concentric ring model

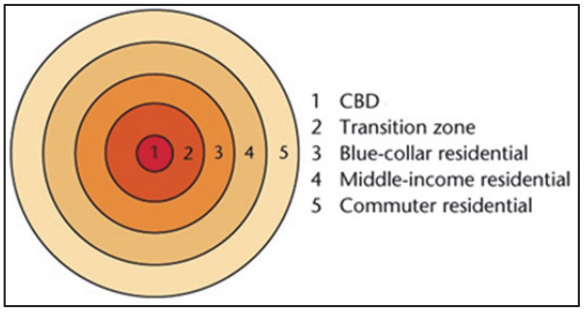
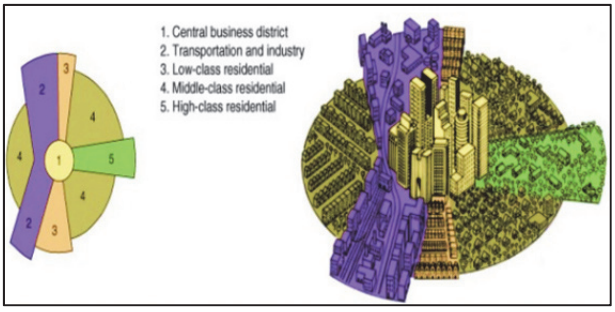


Figure 2.2: Hoyt's sector model



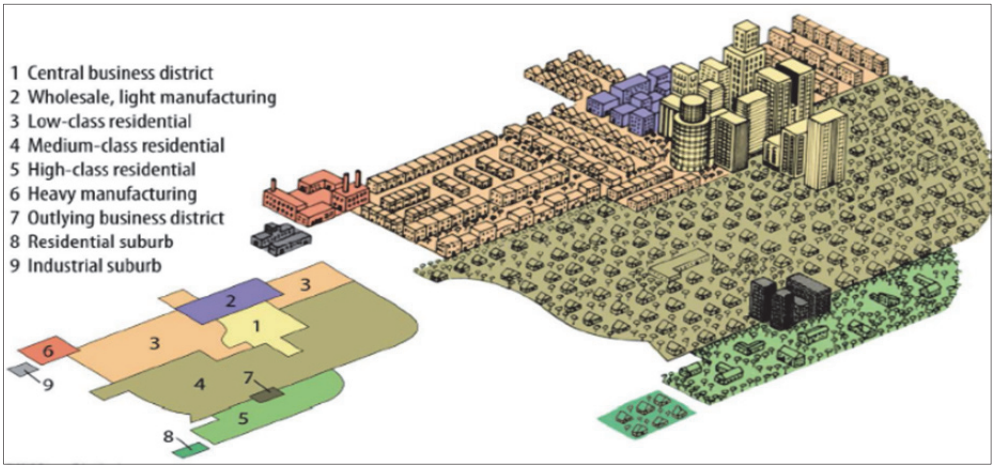
Source: http://www.slideshare.net/

What is also important to underscore here is that whilst this model offers a broader picture at city level, the sectors or rings present different residential land values and varying housing preferences and thus generate different housing markets.

The multiple nuclei model

This is an ecological model put forward by Chauncy D. Harris and Edward L. Ullman in the 1945 article "The Nature of Cities". They argue that many cities did not fit the concentric zone or sector models as pounded by Burgess and Hoyt respectively. Cities with greater size were developing substantial suburbs which functioned like smaller business districts or centres. At the centre was the CBD, with light manufacturing and wholesale located along transport routes; heavy industries locate near the outer edge of the city, perhaps surrounded by low-income households. Commuters and small service centres would occupy the urban periphery (see Figure 2.3). The specialized cells of activity would therefore develop according to specific requirements of certain activities, different rent-paying abilities and the tendency for some kind of economic activity to cluster together. While acting as satellite nodes or nuclei of activity, land use patterns would form around them.

Figure 2.3: The multiple nuclei model



Source: http://www.slideshare.net/

It is worth noting that despite varying conceptions and model elaboration, some issues are more characteristic across these models. For instance, location is a critical variable which determines the preference of particular residential land use, land and housing value. This is closely linked to and inseparable from the transportation link.

Modern urban residential structure model

The urban residential structure, particularly in developed countries, has become much more diverse from 1970s. Marcuse (1996) notes that there have been fragmentations of the urban residential structure into luxury housing spots, the gentrified city, the suburb city, the tenement city and the abandoned city. Basing on the views, the urban poor or the working class mostly dwell in the abandoned and tenement city. Furthermore, the model illustrates the relationship between urban poverty and urban spatial structure as well as consideration regarding macro-level development and the role of the state. Moreover, it reveals the relationship among macro-level development, urban poverty and the evolution of urban residential structure. The model shows how contexts such as politics, macro-economic conditions and social conditions are particularly related to the transformation of the poor's' urban residential structure. For instance, the model explains how any of the variable transforms poor's' residential structure. Cross (1992: 91) argues that in reality all choices are made under conditions or constraints and that people internalize their possibilities and the overall context when defining their choices although less educated people might not be able to name it in a logical way.

Critical issues on the classical models

Generally, most of classical models were based in North American cities in the 1st half of the 20th C. In other cities of the Global North, the models have been successfully applied and at other times by modifying them. E.g. Robson (1969) modified Burgess and Hoyt models and applied to Sunderland in the 1960s and 70s. Likewise, London has concentric rings with older and poorer inner-city areas and more affluent suburbs. It also exhibits sectors, e.g. the zone of workers' dwellings that developed in the industrial revolution with an affluent residential sector in the North and West. Multiple nuclei such as the financial centre of medical services, banks and media institutions are clustered around Harley Street. Normally, Burges model works well to cities that grew very rapidly due to massive immigration – a characteristic of many North American cities.

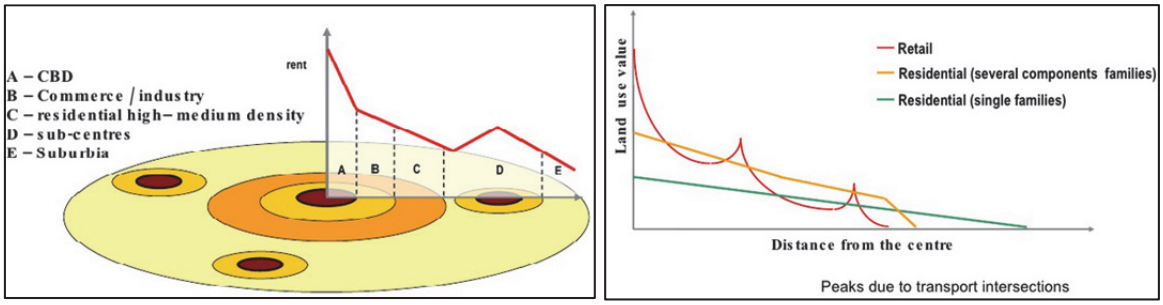
Since the early 1980s, urban geographers e.g. Hall (2001: 86) have argued that the ideas of Burgess and Hoyt regarding the city are obsolete. There are signs of emergence of new urban form despite a number of differences between individuals. They generally agree that new cities are more fragmentary in form, more disordered in structure and are generated by processes of urbanization which are different from those of earlier cities. Lewis (1983) and Knox (1993) argue that the new urban form is usually nicknamed "galactic metropolis". This form illustrates a city that is not a single coherent entity - with numerous large spectacular residential and commercial developments with large environmentally and economically degraded space between them. Knox (1993) observes that the new form is set to resemble a pattern of stars floating in space rather than the unitary metropolitan development growing gradually outward from a single centre.

Although Hudson (1970) observes that multiple nuclei model is applicable to many colonial cities in Asia and Africa with at least twin nuclei - a European one and an indigenous. In reality, many cities including Dar es Salaam grow within the neighbourhood concept which still propagates the differential plots (high, medium and low for low-, middle- and high-income groups) within the same neighbourhoods. Additionally, land use planning failures, leading to formation of unplanned settlements, have made the application of classical models almost impossible. Nevertheless, as cities expand, small and large sub-centres tend to emerge as the multiple nuclei model suggests though the model was not the basis for planning and designing.

2.3.2 Bid rent (function) theory

In 1964, William Alonso put forward a geographical economic theory that explains how the price and demand for real estate changes as distance from the CBD increases. The theory based on the idea that retail establishments wish to maximize their profit and hence they are willing to pay more for land close to the CBD and less for that which is far from it. In this case, as distance from the CBD increases, land becomes more available and it is therefore affordable for residential and even for agricultural use. In this regard, the amount that developers are willing to pay is referred to as bid rent. The theory, therefore, suggests therefore that land values have major influences on land use patterns. Alonso further defined land use, rent, and intensity of land use; population and employment as a function of distance from the CBD (see Figure 2.4). As far as housing choice is concerned, he argued that households choose different residential locations with respect to the quality, quantity of housing and the amount that a household could pay as rent or price at different locations (with different transport costs) to such an extent that the same level of satisfaction is achieved.

Figure 2.4: Land/housing value for activity sector with respect to distance from CBD



Source: http://www.slideshare.net/

2.3.3 Approaches regarding household resources in housing choice

The Neo-Weberian approach

In the light of the Neo-Weberian perspective on housing classes i.e. people are distinguished from one another by their strength in the housing market, Qi (2006: 41-42) discusses the relationship between the idea of household and individual resources in housing. The approach reveals that the choices of housing are explained by the strength of individuals or households as determined by their ability to occupy the best housing and locations. Furthermore, the ability to occupy is not only a result of financial resources but also of cognitive, political, human, physical and social resources. However, this approach views the importance of these resources from the side of access to housing (demand), which I see as a weakness. In my view and as noted in the literature reviewed I argue that the resources also play a vital role on housing production (supply). Taking these ideas on board and based on Murie (2003: 40) ideas of household resources into housing research, I briefly discuss these resources reflecting on their importance in the production of and access to housing; which is a central issue in this study.

- Financial resources: Individuals or households with weak position in the labour market generally have lower incomes than those with strong positions. Similarly, those with insecure jobs or those with low-income jobs are the most disadvantaged in the housing market (both in the production and access). In spatial terms, it means that this group has a small number of

options available and therefore those falling in this group may concentrate in low standard housing areas or in those with the opportunity for low-cost housing.

- Cognitive resources: An important cognitive resource is the knowledge of the local housing market. It encompasses the ability to access local knowledge (legal, financial, institutional system) and overcome institutional barriers. Knowledge of these issues - the importance of access to information being crucial, enables one to make informed decisions and reaches a desired housing situation. Without this, actors in the market are making uninformed judgement and in turn, this may affect them adversely.

- Political resources: Referring to the possibility of attaining and defending formal rights of the society, formal rights may hinder or enable people in their efforts to achieve important objectives in life. The poor and vulnerable groups may experience adverse effects on political resources while the rich and other affluent groups are the most favoured. Lack of formal rights to participate in the society or access to certain positions in the labour or housing market strongly affects individuals' or households' ultimate housing conditions. For example, failure or restrained participation of the poor in decision making on matters that concern funding allocation, expenditure on housing and related services may mean that the poor are denied access to affordable housing opportunities. As a result, the poor may be forced to concentrate themselves in the poor housing options without basic services.

- Social resources: This involves direct or indirect accessibility of important persons, groups and membership in a social network. Such social resources are also important also in the facilitation of information flow and social integration. They may also play an important role in providing options to challenges emerging, achieving important aims as well as attaining position in the labour and housing markets.

Complimentary ideas on these resources are also explained by the *livelihood approach* which is not discussed in this work but it has frequently been referred to in different sections.

Critical issues on Neo-Weberian approach

Despite its strengths on classes and possession of resource by individuals or households, some scholars have criticised the approach and on its local application. The first and main criticism of the approach is on the implied unitary scale of values of different housing consumers and the unclear basis of the conflict between the classes (Özüekren and van Kempen, 1998: 1640). The second is on housing or shelter as a scarce commodity for the low-income group. In this case, the approach and many other studies have focused on the issue of access to housing noting different classes and resources of households. However, housing classes may still be useful in studies of specific populations groups, such as immigrants, with common set of preferences and constraints linking them to a common housing type (White, 1987) and to specific neighbourhoods.

Rex (1968: 214), on the local application of the Neo-Weberian approach, argues that class struggle between groups, differentially placed with regard to the means of housing, is separable from industrially defined class relations and may at local level be as acute as class struggle in industry. Correspondingly, even though power in the labour market is clearly an important factor in determining individual's power in the housing market, those with the same position in the labour market may come to have differential degrees of access to housing.

2.4 Choice of multiple nuclei model and Neo-Weberian approach

Among the theories/approaches discussed in the preceding section, the study considers the multiple nuclei model and the Neo-Weberian approach more relevant. The choice of the model and approach was based on their individual contribution in this study. Foremost, the multiple nuclei model extends more from the limitations of Burgess' concentric and Hoyt's sector models i.e. urban residential cluster development around specialized sub-centres with more or less the same characteristics and functions as those in the CBD. In fact, unlike the modern urban structure model, many cities in developing countries are growing in this pattern. The model further explains land and housing values with reference from the CBD and sub-centres as well, depending on the use. It also sheds light on the characterization of land use patterns/clusters, land and housing prices and rents in respective clusters, and which income groups they tend to serve. The Neo-Weberian approach aids to understand individual or household resources which can push them and engage in housing development or to make informed decisions on housing choice. Ultimately, the model and the approach were important in generating the conceptual framework, the research design and the means of investigating the context (methodology).

2.5 Housing production systems and developers' strategies in urban areas

Lansley (1979: 48, 56) argues that housing supply comes from two processes: constructing new dwellings or converting the existing dwellings. From these processes there are net additions to the existing stock through conversion with/out change of use and new housing stock from new developments. The main actors in housing production are developers (private, public or private-public) and the government. Developers' decisions as to whether a development project is desirable and profitable depend on the market conditions e.g. the supply and demand situations of properties and capital. Thus, they are very sensitive to the market and active in producing or reproducing the built environment.

As noted earlier, among the key determinants for housing production and supply, *ceteris paribus,* is the amount of buyers or tenants who are economically able to afford the price or rent of the expected units to be provided. Hou (2009: 11) explains this by arguing that the major three factors that affect housing market on the supply side are new construction, the number of developers and input costs. The production or supply is also influenced by the market or institutional structure (government set up) which guides or may even regulate the supply [i.e. the planning and taxation systems]. The government includes organizational structures, their roles and responsibilities and how they act i.e. whatever decision they take towards housing production and supply. In other words, structures drive the operation of the market and guide the behaviours of other market players. Hence, the government has a role, among others, to provide the policy, legal frameworks, procedures, directives and their implementation. Hill and Lindner (2010: 114) add that administrative procedures define the path and institutions through which the public authorities and the general public follow in order to achieve their objectives.

Institutional framework also deals with legislations (planning laws, regulations[8] and standards[9]) that govern the production (in terms of planning and development) and management of housing in a specific town, city or country at large. However, in some countries, these instruments have more impact on public and semi-public housing projects on matters pertaining

[8] Rules that allow or restrict activities on the plot or in an area and the way the plot can be developed or used (land-use zoning controls, plot-use restrictions and building setbacks)

[9] Define how the settlement should look like in terms of 'quality' regarding plot minimum sizes, minimum frontages, road widths and provisions for public, social and economic uses

to access to land, finance and adherence to building regulations because of the nature and objectives of the projects. In some cases they favour public projects as they are more public-interest oriented than private oriented housing projects. The institutional setting also involves the issue of transaction costs especially in relation to the time and resources one has to spend in the process of trying to get land or services necessary to facilitate realisation of housing dreams.

Literature has shown that engagement in any real property activity involves varying strategies depending on the location, with a target on a particular income group. For example, Franklin (2006) argues that in inner-city areas, developers aim at exploiting niche markets by selling the units to affluent households, which he calls gated communities, as new ways to accommodate contemporary city living. Concomitant with Franklin's argument, Seraj (2012) observes that in Dhaka City, units supplied by private or partnering real estate developers were ordinarily bought by or rented to higher and higher-middle income households with an average car ownership employed in business and service industries. This was also the case in Nairobi City neighbourhoods after the engagement of large-scale landlordism in real estate activities (Huchzermeyer, 2007). With respect to peri-urban areas which Franklin (2006: 259) terms marginal places, housing development was mainly for the economically marginalized people who in this study are referred to as low middle- and low-income households. This argument is also in line with the proposition made by Seraj on new housing development by real estate developers in the outskirts of Dhaka City. These examples show that developers (public/private/JVs) who are the main producers and suppliers on the supply side of the market mainly construct houses in inner-city areas for sale or rent because of high prices or rents. This has effects on the type of consumers in terms of their effective demand.

The morphological and functional conversion of dwellings has many positive as well as negative attributes. On the one hand, the positive attributes include addition of housing units to the existing housing stock and hence contributing to the reduction of housing shortage. For instance, at a low scale, housing extension, as a livelihood strategy by means of generating income through renting, is a response to rural-urban population shift in order to provide accommodation for family members or housing services (Tipple et al., 1992: 170-174; Nguluma, 2003: 227; Sheuya, 2004: 114-115). On the other hand, when supply is fuelled by market forces particularly high demand, there are always changes in densities and land use. Except alteration which does not increase the total net floor area (Kim et al., 2005: 3; Aduwo et al., 2013: 3), extension increases the net floor area as well as the net residential density.

Summary of major lessons

Literature reviewed provided a picture that in already developed areas housing cannot be produced through just one. This is due to the fact that in these areas land for housing is a scarce resource (it cannot be reproduced or re-created) and hence there are always struggles for housing land. Due to this scarcity, developers tend to maximize space use as a way to optimally utilize it while risking the regulations which guide housing development.

Housing production and supply in inner-city built up areas where land value is high may involve many overlapping or similar approaches such as reconstruction, extension, renovation, gentrification or infill development. According to Tipple (1991: 4), these approaches involve converting building forms (morphological conversion), use of buildings (functional/typological conversion) and the layout of the area (spatial conversion). In such areas, new high-rise multi-storey buildings which can fetch high market prices or rents due to market forces are often built. Usually market forces favour demand for housing for middle- and high-income households

particularly in situation experiencing rapid economic growth. The need for transformation may also be influenced by the government programmes, policies, regulations and the prevailing planning system. Access to land *inter alia* depends on the land tenure. In planned areas whereby the statutory land tenure is common, formal processes and procedures apply while in unplanned areas where customary tenure dominates, the informal processes apply. However, often the performance of the formal system in delivering buildable land is dismal, giving rise to informal options. This is the case in many SSA cities and poor developing countries in general.
The implications of the emerging house types include:

- Social differentiations-most low income households are not accommodated in new housing. They are pushed into peri-urban areas and often densely packed informal settlements.
- Owners or tenants may sub-lease or rent part of their housing space in order to sustain their living due to economic hardships -a hidden market emerges.
- Destruction of identities of some historical cities and of certain groups' culture as well as loss of identities.
- The physical degradation of the cities due to erection of high-rise buildings which Ali and Kodmany (2012: 61) refer to them as eye sores and unwanted burdens on the urban fabric. The burdens include decreased set-backs, increased building heights, floor areas ratios and net residential densities.

2.6 Housing choice in the urban housing market

Access to or housing choice is primarily driven by possession or availability of private or public resources and information on available housing units. The public resources include, for example, the existing government policy, availability of public infrastructure and services while private resources may include financial and material resources. Lansley (1979: 47) adds that demand for housing is both for consumption and investment reasons. The quantity of goods demanded by customers (effective demand) are guided by certain socio-economic conditions such as price of the good, income and wealth, prices of substitutes and complements, population and preferences (tastes) between tenures. In this aspect, the increase of income and number of household members drive the demand for housing thus raising housing prices (Hou, 2009: 11).

Scheiner (2009: 15-16) notes that transport, spatial structure and society are closely interconnected aspects. Demographic changes, shifts in values and lifestyle variations influence the different demands with regard to transport modes, mobility and housing or can even change travel behaviour. Spatial structure development due to suburbanization and the major expansion of transport structure, for example, has led to an acceleration of spatial interactions and high accessibility. It has also partly led to social polarization, diving societies in the highly mobile ones and those that are not able to fulfil their basic mobility needs.

Some authors have revealed that there is a direct relationship between where people choose to live and the means of transport they can afford to use in making movements. However, the choice of the means of transport is also backed by income levels. In other words, when houses are on the market, for housing customers to make proper decisions on whether to buy or rent, they usually consider how the products are connected to other areas or services and how they can reach those areas with respect to available means of transport which they own or afford.

A wide range of literature has shown that the urban poor households prefer living in central areas of cities, often in cheap housing areas such as slums or unplanned settlements (Tinsley,

1997; Yapi-Diahou, 1995: 20; Limbumba, 2010). In this regard, the pull factors are proximity to work places (the use non-motorised transport such as bicycles and walking since incomes are incoherent with motorised transport costs). Tinsley (1997: 18) in her study on mechanics of informal and housing markets in Bangkok, for example, argues that informal employment has been generally concentrated near the CBD, and therefore the urban poor have tried to concentrate their housing as close to the centre as possible. Yapi-Diahou (1995: 20) agrees that proximity to employment opportunities is the primary reason for poor households to move in informal housing in the Abidjan city centre. They include heads of household, tenants or owner-occupiers, nationals or foreigners, men or women, being handicapped by the distance between them and the areas of economic activity, are trying to move closer.

Others, for example, Coombs (1981: 228) and Weisbrod et al. (1980: 3) argue that due to lack of affordable and available land for housing in the core areas of the city, many urban poor households are forced to move to peripheral areas where land and housing are extremely cheap. This statement, however, might only be true for those households which seek to attain owner-occupied housing carrier. For those who prefer renting, the fact is that they would prefer to rent closer to the city where they work. In terms of how they move to work places, they argue that they totally depend on public transport, which is usually undesirable and inefficient.

A study on the shelter of their own in Cairo by El-Batran and Arandel (1998: 219) reveals that the land and housing market, especially when the market price for land and housing is high, can automatically displace the poor households due to their low purchasing power. Their findings reveal an emergence of a class with a high purchasing power following the return of workers from the Gulf States. The market responded to their demand for luxurious housing of which most Egyptians could not afford the prices. As a result, urban growth expanded over agricultural land around the cities as the price of land on the peri-urban areas was affordable by the poor.

Their observation is similar to what has been observed in many SSA cities as well as what Hou found in some Chinese cities. For example, in the study on urban housing markets in China, he observes that the most high-quality apartments and villas[10] in the prime areas of the city were mainly constructed for and marketed to high-income households at much higher prices than the common apartment housing (Hou, 2009: 2).

In contrast, other studies for instance, by Senbil et al. (2009: 326-327) found that vehicle ownership rise with the increasing distance from the CBD where density and accessibility decrease suggesting that more affluent households prefer living in the countryside. Scheiner (2009: 129) on the same suggests that this could either mean that suburban locations rather attract households which own cars or that households that live in the peri-urban areas are more likely to acquire cars. This view questions the fact that the urban poor households in most third world cities make decisions to live in the peri-urban areas where land and housing are cheap.

However, Coombs (1981) and Weisbrod et al. (1980) argument could be true if the urban poor households' work places are located in the peri-urban areas where they don't need to commute to the city centre on a daily basis. Daly (1968: 44-46) argues that there is a debate if proximity to work place is an aspect considered by the low- or by the high-income households. Some authors argue that lower income households would prefer a short distance to work in order to avoid high commuting costs. Others argue that higher-income households tend to live in big houses in the peri-urban areas because they do not worry about commuting costs as they own cars

[10] Villas are equivalent to detached or semi-detached houses with gardens and more space for other out-door activities

and have all the necessary resources to enhance movements. In contrast, others argue that it is the middle income households who prefer shorter distances to work places regardless of their financial ability to own cars (ibid).

Limited studies reviewed on the middle-income households - as far as housing choices are concerned - show that their preference is to live in or around city centres as renters whereby different urban amenities such as clubs and other entertainment places are found. Owing to the resources command they possess, sometimes such families may move to the peri-urban areas as owner-occupiers. In terms of house sizes, although middle income households' families tend to be smaller than the urban poor class, they still live in bigger houses having an average 1.5 extra rooms than the urban poor households (Reudenbach, 2012: 13; AfDB, 2010; Banerjee and Duflo, 2008: 7-10, 22-25). Commuting to different areas is enhanced by the use of private and public transport as some own cars while those who use public transport have adequate financial resources to cater for their necessities (Reudenbach, 2012: 13).

Defining income groups

Although people define low-, middle- and high-income groups using different variables particularly the amount of financial capital, and possession of physical and natural resources; such definitions are volatile and they depend much on the geographical context. The strongest variable which applies in all geographical contexts remains income at national, household and individual levels. Owing to this, ADB (2010: 3) and the AfDB (2011a: 2) define income groups basing on their income and consumption expenditures or purchasing power parity. While households with consumption expenditure of less than US$ 2 per person per day are termed low or simply the poor, those with consumption expenditure of between US$ 2 and 20 per person per day are middle and households with more than US$ 20 consumption expenditure per person per day are affluent. Furthermore, the middle income households are broken down into three sub-classes: lower middle with consumption expenditures of US$ 2-4, mid-middle with US$ 4-10 and upper middle with US$ 10-20 per person per day (ibid). With respect to Tanzania, the AfDB (2011: 18, 20, 22-23) asserts that 87.6% of the Tanzania's population are considered poor households, 12.1% are middle class and only 0.7% belong to the rich class.

As argued earlier, although natural and physical resources e.g. car ownership are perceived as one of the main variables to define income groups, I argue that these variables may not necessarily be one of most considered in housing research unless a critical analysis on the types of such resources is made. For instance, in developing countries particularly in Tanzania, car ownership has been very common across almost all income groups indicating that it is an explicit goal for most people. However, the type and value of cars owned vary from one group to the other. In my views, income remains the sole variable that can fit better in measuring household or individual consumption and satisfaction. In this study, therefore, I consider and define income groups basing on the definition provided by ADB and AfDB in the above paragraph. Despite the fact that other resources can facilitate housing production and affordability indirectly, income of developers as well as of buyers and renters still counts more than other variables which may be additions to income.

2.7 Housing information dissemination

Housing information facilitates the search for properties available to rent, sell, or buy (Aluya, 2008: 41). The dissemination can be done symmetrically (producers direct to customers, PC) or asymmetrically (producer to customer via broker, PBC). In most developed and developing

countries, housing information usually flows from producers or sellers to buyers in an asymmetrical way i.e. through brokers or real estate agents as a medium. According to Aluya, transaction cost in the housing industry remains high due to the dissemination of asymmetrical information on housing to customers. In this case, brokers charge fees to help facilitate housing transactions. This increases housing prices and rents and as a result, some individuals are expelled from the housing market. On the other hand, the customers assume to benefit when housing units are available due to symmetrical information on availability of housing units (ibid).

Methods for disseminating information in most developing countries are manual and in most cases, involving brokers or real estate agent to fetch such information from producers and disseminating to would-be customers. After the genesis and global proliferation of computer technology in the 1960s and developing into a network servers in the 21st century i.e. e-commerce, information on housing is readily accessible through internet. This has not only helped customers to mitigate finding available housing but also avoiding price and rent inflation through an asymmetrical way.

2.8 Detailed research questions

Basing on literature and theoretical views, the general research questions outlined in chapter one have been split into focused and operational ones in order to fulfil the requirements of this study. They are also important in conceptualizing the study which will guide the empirical findings and later on in drawing conclusions on specific themes. The questions encompass the following:

1. How is housing, in redeveloping inner-city areas of Dar es Salaam, produced/supplied?
   1.1 Through which ways are housing units produced and what are the driving factors for the production?
   1.2 Who are the developers, how do they access land, finance and what are their investment strategies?
   1.3 What is the quantity and quality of housing produced?
   1.4 What are the prices, rents and paying modalities?
   1.5 Who are potential customers of the emerging housing units?

2. What are the consequences of housing production dynamics on the urban form?

2.9 Conceptual framework

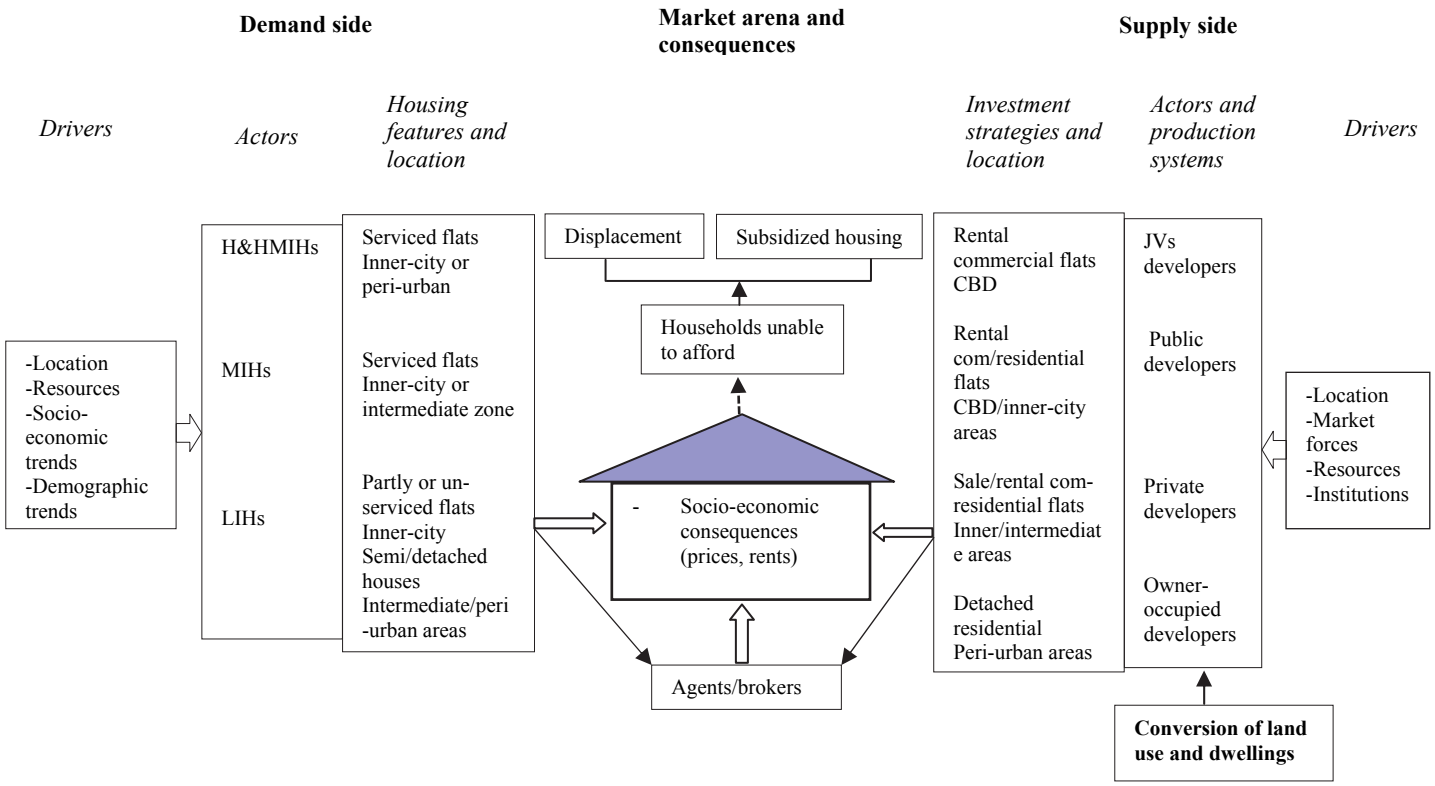
The above discussion is summarized into a framework which guides this study (see Figure 2.5) with respect the detailed research questions outlined in section 2.8. The housing market is conceptualized as a system which embodies a set of market players both on the supply and demand side. In order to unravel the behaviour of the urban housing market, including the formation of housing price and market segregation, it is necessary to know the housing production and supply systems, strategies of the market players, and the market rules. Such information, including the relationship between the players and rules, is the key to understanding the behaviour of the urban housing market.

The framework is thus divided into three parts: the supply side, the demand side and the market arena. As shown in the figure, the demand side represents the consumers of housing output who are individuals or households while developers or suppliers, integrate resources to produce housing. Real estate agents or brokers handle the housing transactions between home

seekers and developers when housing outputs on the supply side are brought to the market. However, the interaction among these actors in the market also shows that housing market operation is significantly influenced by both exogenous and endogenous forces which determine whether individuals or households can afford housing costs in specific locations. Exogenous forces include income, wages and the number of households while endogenous ones are housing prices, rents and housing stock.

The supply side points out the supply driving factors, types of developers, processes through which housing units are produced and supplied to the market, and strategies for engaging in real estate activities in specific locations. The demand side includes factors that attract house seekers in the market, different income groups and their housing choice preferences in the urban continuum. As a rule of a thumb on this side, all households or individuals need housing as a basic social need. This drives all households belonging to different income groups to enter the market. Income groups that cannot afford market prices or rents because of being inflated by developers or real estate agents are automatically expelled to other areas with affordable prices and rents or opt for subsidized housing usually provided by the state. On the other hand, income groups which afford prices and rents required by developers buy or rent the unit supplied. The socio-economic and spatial consequences resulting from the market forces are also illustrated in the market arena.

Figure 2.5: Conceptual framework



Key:

HMIHs=High-middle income households, MIHs=Middle-income households, LIHs=Low-income households, Gvt=Government, JVs= Joint ventures

Source: Adapted from DTZ Consulting and Research, 2007; and modified by the author

3 THE STUDY CONTEXT

This chapter highlights some key issues related to housing production and housing market in urban Tanzania and the locational context within which this study was conducted. Specifically, it includes an overview of urban housing production and supply at country level, the urban housing backlog and responses towards it. Moreover, the main actors, their roles and the institutions governing the production are discussed. Subsequently, I present the socio-economic and spatial trends as well as land use change in Dar es Salaam City over time. Moreover, the formation of housing sub-markets in Dar es Salaam metropolis that predispose developers to produce and supply houses are also discussed. These aspects altogether set the background for the empirical study.

3.1 Housing development and supply in Tanzania

3.1.1 An overview of housing quantity in urban areas

In the past, the role of housing development was partly being assumed by the public sector which built houses for renting to only government workers. For instance, housing construction for rental and sale was done through the National Housing Corporation (NHC) and later on parastatal pension and social security institutions jumped in the industry (URT, 2000; URT, 2009; Lucian, 2011: 3). Recently, Tanzania Building Agency (TBA) started to build housing for civil servants. The involvement of the private sector in property development and investment started in the third phase of economic reform, from 1983 to date. Effectively, foreign and private participation in property development started from 1996 following the enactment of the National Investment Promotion Policy in the same year. The policy, among other things, opened most sectors to foreign and private participation (OECD, 2013: 11).

Private sector involvement in property development in the first phase (1961-1967) was almost non-existent since the government still implemented import substitution policies. These policies considered the public sector as a source of support for private sector growth. In the second phase (1967-1983), the focus of the government was on socialism programs (Ujamaa) including nationalizing major private companies and private properties (OECD, 2013: 24-25). Other reasons for lack of private real estate developers in the first and second phases were (i) lack of access to finance (ii) lack of technical and managerial capacity in the real estate development sector (iii) high cost of using imported materials and (iv) lack of provision of basic services and infrastructure by local authorities. Private developers were, therefore, forced to develop their own solutions which inevitably raised housing costs significantly (Urban Solutions, 2012: 36).

As a result of low supply of housing in urban areas by the public sector, urban population has been increasing from a low base of 5.7% to 22.6% over the 25 years period (1967-2002). During the same period, the total urban housing backlog also widened. By the year 2000, the deficit was already at 2.2 million units (URT, 2009). Ten years later i.e. until 2013, the national urban housing shortage had escalated to over three million units; growing at a rate of 200,000 housing units per year (The Guardian, 2013).

3.2 Responses towards the urban housing backlog

3.2.1 Socialist Era (1961-1984)

Establishment of National Housing Corporation (NHC)

The primary objective of establishing NHC in 1962 NHC was to construct housing for sale or rent to the low income households. This was initially funded from external sources and subsequently through direct government financing. MDC (1992: 2) notes that with the worsening of the economic situation available, government funds were reduced sharply and NHC was expected to rely on severely limited funds from the Tanzania Housing Bank (THB). Its performance during the first seven years of its existence was impressive. It carried out massive slum clearance in major cities by replacing the slums with new single storey housing units that were rented out to the previous slum owners. Some of the housing units were sold to tenants on a hire purchase basis. As such, a total of 5,705 'low-cost houses' were built by the NHC, 70% of which were in Dar es Salaam (Stern, 1985; Komu, 2011). In the latter years, its performance dwindled mainly due to meagre fund allocation from the government that dropped from US$ 3,600,000 in 1970/1 to US$ 416,000 in the 1972/73 period.

In 1970, the NHC had embarked on experimental projects in Dar es Salaam, within a National Sites and Service Program by erecting concrete slabs for 795 foundations and 60 houses hoping to realize 18,250 such plots. The project failed as the government failed to finance it and funding that was expected from the World Bank was not forthcoming for another three years. NHC could hardly meet its target of constructing 2,000 units a year during 1969-74; instead only 138 units were realized. Consequently, with NHC incapacitated and the problematic land control strategy, squatting housing registered a magnified growth from 14,720 houses in 1969 to 27,981 in 1972 in Dar es Salaam - a record of around 8% per annum over the three years. This means that 44% of the city of Dar es Salaam population were already living in squatter areas in 1972 (Kironde, 1992).

The production of housing dropped dramatically from 1,241 units in 1973/74 to 305 units in 1974/75 (URT, 2000: 61). The same trend continued over years and in 1991 NHC managed to produce 222 housing units only. Currently, NHC does not fulfil its original mandate to provide low-income housing on a significant scale; it has shifted to market economy.

Establishment of an employer-staff housing scheme

The 1975 Employer-Staff Housing Scheme required employer organisations to develop staff housing estates in order to provide direct housing for their employees. Owing to this requirement, block land allocations in new planned areas in the cities were made. Included in this scheme were central government ministries, local authorities, public and semi-public organizations e.g. pension and insurance funds. There were two categories of staff that the Government Standing Order recognized: those considered as 'entitled' and those 'eligible'. Entitled employees were defined as senior officers judged on the criteria of salary scale, marital status, nature of services offered and years of services. Staff in these categories had to be housed unconditionally. If the requisite housing type was not available within the organization, the employee would be temporarily accommodated in a hotel. Eligible officers were those that could be provided with employer housing if it was available. The employer was not obliged to provide housing to this cadre in any other form such as housing allowance or rent subsidy (Komu, 2011). For instance, financial institutions like the then National Bank of Commerce constructed over 6,200 housing units for its staff, while the National Provident Fund (now NSSF) had 396 units in the city of Dar es Salaam

alone. The total contribution of employer housing to the affordable housing program was significant (9,477 housing units) when compared with what the NHC was able to construct during the same period. The Government as employer organisation through the Ministry of Works developed a large number of housing units throughout the country, which were separately managed by the Department of Buildings.

3.2.2 Transition from Ujamaa to market-oriented economy (1985-1995)

In 1984, Tanzania adopted what it termed 'Trade Liberalization Policy' which guided steadily the country's path towards a market-oriented economy and eventual disbanding of single-party political system and introduction of multi-parties politics in 1992. Komu (2011) observes that in the run-up to market-oriented economy, employer organisations, which had been major suppliers of new housing in the market, stopped all new developments. At the same time, the newly formed Presidential Parastatal Sector Reform Commission (PSRC) in 1992 - in striving to privatise the public sector firms - sold off substantial residential assets owned by the parastatal organisations, largely reducing the public rental sector. For example, the privatization of NBC in 1997 led to selling of its residential properties. By June 2000, a total of 200 residential properties had been sold out while the remaining was subsequently sold out during the 2000-2006 period.

Most of the employer housing units that were sold off to the public were being converted into some other uses mostly hotel and offices to take advantage of the location and latent value of the sites. In later years, realizing the profitability of rental business, pension and insurance funds expanded their investment in apartments within these areas. As a result, first-class residential accommodation in fenced estates has been availed in the cities of Dar es Salaam and Arusha by the Parastatal Pension Funds. Komu (2011: 56) adds that diplomatic missions accredited in Tanzania were also encouraged to develop their own housing estates. Moreover, Municipal governments in Dar es Salaam and Dodoma set aside lands for this purpose. To-date, the urban landscape is dotted with gated housing compounds of foreign dignitaries. Typical examples are those in the Msasani area of the city of Dar es Salaam which include Valhalla Village (Scandinavian countries), Canadian Village (25 units), and Tipper Village (52 units for Italians).

3.2.3 Market-oriented economy (1996-to date)

The events during the last decade show that Tanzania exhibited sound economic growth and in particular it attracted direct foreign investments in various sectors of the economy. This era roughly fits into the 3rd Phase of Government which ran from 1995 to 2005. The government embraced a number of global initiatives towards eradicating poverty and opening up the economy to global trade. It is during this era that market-oriented policies in almost all sectors were transmitted and the nation laid out its development vision over the next 25 years. The initiatives towards developing a strong private sector have embraced enablement, participation and partnership approaches. It was during this era when real estate activities started to intensify in major cities and towns in the country, adding substantial housing units to the existing housing stock.

The recent real estate development boom in Tanzania is a response to the free market economic policies. It has therefore evolved in the recent years and it is still very small but rapidly growing. Despite being at infancy stage, the sector contributes about 2.7% of GDP (Kongela, 2013: 103). Lucian (2011) on rental value trends in real estate investment in Dar es Salaam argues that investment in real estate has been positive and increasing from the time Tanzania

adopted trade liberalization measures. He further notes that the private sector started to emerge following the Public Corporation Act of 1992 which opened doors for pension funds to operate commercially in a manner which generates high rates of real return over a prolonged period. Pension funds in the same year had intuitively believed there was merit in considering diversification strategy into real estate investment (ibid). Consistent with Lucian's arguments, Urban Solutions (2012: 10) records that two decades ago the private or "organized" developer/builder market was virtually absent and there were no professional real estate developer associations. The small amount of private estate development which occurred tended to focus on luxury market property developments targeted to the wealthy, expatriates or the Diaspora.

Moreover, the government has continually being encouraging real estate investment by both public and private institutions. The Tanzania Housing Policy (2014) recognizes that in recent years real estate developers have emerged in urban areas to produce quality housing often for specific market targets. The scale of production is, however, still small due to lack of effective demand and affordable credit finance for housing production. The challenge is, therefore, to ensure availability of affordable credit finance to stimulate effective housing market that will attract large-scale private developers to invest in low- and medium-cost housing.

This situation has called upon continued efforts to government and non-government institutions to invest in real estate as the quotations below emphasize:

> *"You should widen the scope of your core function of just being a landlord and seriously embark on real estate development."*[11]

The quotation was part of the speech which was delivered by the Minister for Lands in 2009 in Moshi Municipality advising NHC to construct high-rise buildings for rental and sale.

Besides the voice of the Minister, the Vice President of Tanzania commenting on the current housing shortage declared that the shortage can also be achieved through Public Private Partnerships (PPP) strategy.

> *"The investment needed is huge and cannot be met by the government of Tanzania alone. The government has enacted and amended various legislations to invite private investment participation."*[12]

The two statements seemed to have further opened up the door not only for public real estate development and investment but for the private as well to construct buildings [properties] for sale and rental. By June 2012, there were about 161 registered real estate companies and organizations engaged in real estate activities e.g. consultation, planning, development and management. As an

[11] Part of the speech of the Minister for Lands, Housing and Human Settlements Development Hon. Capt. John Chiligati in January, 2009 in Arusha while challenging the National Housing Corporation (NHC) to begin focusing on real estate development by constructing affordable residential houses and shopping centres. Also available on http://www.tanzaniainvest.com/construction/news/153-tanzania-real-estate-development-receives-push

[12] Part of the speech of the Vice President Hon. Dr. Mohammed Gharib Billal in Dar es Salaam on December 21, 2012. Also available at http://www.tanzaniainvest.com/construction/news/513-tanzania-housing-shortage-of-3-million-to-be-achieved-via-private-public-partnership

outcome of the increase of real estate companies in the prime areas of the city, one observes many on-going and completed housing projects for sale and for rent. The largest portion of housing supplied target on commercial, office, residential and mixed uses.

Land policy reforms and legislation

In 1992, a Presidential Commission, headed by Shivji, was formed to study and review existing land tenure system and advice on the most appropriate legal framework. The Commission made a number of recommendations that aimed at overhauling the 1923 land ordinance. After intense debates and consultation, a new land policy was eventually adopted in 1995 and four years later the policy was translated into two pieces of legislation, the Land Act No. 4 of 1999 and the Village Land Act No. 5 of the same year. The two Land Acts have had tremendous impacts on the housing sector in Tanzania. The major point of departure of the two legislations is their recognition that land has exchange value and that individuals could trade in land under certain limitations hitherto not permissible. In particular, under the new legislations, landowners could pledge their lands as collateral in different financial institutions for reasons of accessing credit finance.

Reforms in the Construction Industry

Due to economic problems experienced in Tanzania during the 1980s and austerity measures that were taken thereafter, the construction industry performance, in terms of production of building materials, was for most part of the period dissolute. Building materials such as cement, roofing sheets and glass were in short supply and the number of skilled persons entering the industry was very few. A large backlog of repairs and maintenance of public housing sector units was due to problems that the industry faced during the era. In the running up to the free market economy a number of reforms were made that have positively improved the industry.

In 2003, a new national construction industry policy was formulated whose objective was to improve capacity and competitiveness of the industry with special attention to utilization and development of local capacity. At the time of adopting the policy, the local construction industry accounted for slightly over 20% of the salaried employment within the national economy. Over the last five years, it had been contributing on average 5.6% to the GDP and was growing at an average annual rate of 9.5%. The policy envisaged a surge in increased construction activities due to the general improvement in the national economy and especially the heavy investment in infrastructure sector.

Institutional Reforms on Housing Finance

The only mortgage lending institution that existed in Tanzania, the Tanzania Housing Bank (THB) was liquidated in 1995 after almost 20 years of service. Since then house development finance in the private sector has been from individual personal savings while in the public sector it is mainly through subvention from the central government budgetary. Liberalisation of the financial sectors has made it possible for the private sector in partnership with the public sector to set up new financial institutions in form of commercial banks and savings and credit micro finance institutions. During 13-14 February, 2006, an important national conference on housing finance, convened by the Ministry of Lands and Human Settlements Development, was held in Dar es Salaam. It called for popularizing of microfinance institutions especially the newly formed Savings and Credit Co-operative Societies (SACCOS) and enabling them to finance housing for low-income households (Komu, 2011). Resulting from the conference, the Women Advancement

Trust (WAT), an NGO campaigned for low-cost land and low-cost housing affordable to the people, demanded the government to consider surveying plots of much smaller sizes against the current minimum official sizes of 400m^2. Also, Pension Funds such as the National Social Security Fund (NSSF), the Parastatal Pension Fund (PPF) and the Public Servants Pension Fund (PSPF) in collaboration with the East African Development Bank and individuals formed a bank - Azania Bankcorp - which started offering house loans in 2002. By 2007, the bank had advanced TZS 2 billion (nearly US$ 2 million) as house loans under a 10-year repayment schedule (Komu, 2011).

In 2008 two laws were passed: the Unit Titles and Mortgage Financing Acts. The Acts paved way for further discussion on re-introduction of mortgage financing in Tanzania. In this aspect, the Bank of Tanzania, with support from the World Bank, formed a Mortgage Refinancing Company whose shares were being sold to Commercial Banks in 2010. The Mortgage Company was expected to guarantee commercial banks for long-term loan facilities that they will extend to investors in housing.

Following the enactment of the Mortgage Finance (Special Provisions) Act 2008 which aimed at streamlining the use of land as collateral for mortgage loans, the government through the Ministry of Lands, Housing and Human Settlements Development, initiated the Housing Finance Project (HFP) to support a lively mortgage finance market. Notably, the HFP aligned with the Tanzania Development Vision 2025, which highlights the importance of access to finance, affordable housing and capital market development. Other initiatives by the government include the passing of the Unit Titles Act 2008 that introduced the condominium law governing sectional properties; the establishment of the Tanzania Mortgage Refinance Company (TMRC) in 2010 to provide medium to long-term liquidity for its shareholder-banks to extend amortizing mortgage loans to individuals; and the promulgation of the Banking and Financial Institutions (Mortgage Finance) Regulations in 2011.

By the end of December 2013, 19 different banking institutions were offering mortgage loans, the number expected to increase even further as more lenders continue to launch their mortgage loan products. During this time, the mortgage market was dominated by four top lenders; Equity Bank, Azania Bank, Stanbic Bank and Commercial Bank of Africa. Others included EFC Tanzania Ltd, CRDB, Barclays, Kenyan Commercial Bank, Akiba Commercial Bank, Dar es Salaam Community Bank, Exim Bank, National Microfinance Bank, Citibank, Tanzania Investment Bank, NIC Bank, Bank of Africa, National Bank of Commerce, African Banking Corporation and I&M Bank (BoT, 2013).

3.3 Main actors and their roles in housing production/supply

3.3.1 Central government: the Ministry

The Ministry of Lands, Housing and Human Settlements Development (MLHHSD) plays a facilitative role on the behalf of the government. The main responsibilities include formulation of policies, laws, guidelines, and land and human settlements administration issues to facilitate housing development through its seven departments and eight sector units. The key departments are the Land Administration, the Physical Planning, the Survey and Mapping, the Housing, the ICT, the policy and planning, and the administration and human resource management. The core sector units include the District Land and Housing Tribunal, Registration of Titles, Property Valuation and Legal Services. Within the Ministry, the National Housing Building Research Agency (NHBRA) is the institution which deals with research on housing and building materials,

whereas the National Land Use Planning Commission (NLUPC) basically deals with rural land use planning. On the other hand, the National Housing Corporation has the responsibility of constructing, selling and leasing out houses (public real estate developer).

3.3.2 Local government

The local government system in Tanzania mainland comprise the second after the central government. The urban administrative system involves city, municipal and town council levels and operates with administrative committees at ward and sub-ward (*Mitaa*) development committees. The rural system includes district councils under which township and village councils as well as sub-village (*Vitongoji*) operate. Following the local government reform in 1992, some of the responsibilities of the public institutions were transferred from the central government to intermediate and local governments through decentralization by devolution approach. However, its implementation did not start immediately. As far as housing production and supply is concerned, respective local authorities have the role to make housing land, land use plans and social services, in collaboration with utility agencies, available while the central governments maintain the role of approving land use plans. In addition, according to the existing legal framework governing urban planning and development as discussed in the following section, local authorities are entitled to enforce development control.

3.3.3 Utility agencies

These are government utility agencies and companies indirectly involved in housing [property] development. They are responsible for the exploration and provision of public utilities, services and infrastructure on land expected to be developed or making improvements in built-up areas. Common services and infrastructure include water and sanitation, roads, solid waste management and electricity.

3.3.4 Financial institutions

Urban Solutions (2012: 32-33) observes that the financial sector in Tanzania has undergone substantial structural change since the liberalization of the sector in 1991. The financial portfolio mainly comprised commercial banks, pension funds, insurance companies and other financial intermediaries. The sector is dominated by banking institutions which account for about 75% of the total assets of the financial system, tracked by pension funds whose assets account for nearly 21%, while the insurance sector comprises 2% and remaining financial intermediaries (mutual funds and microfinance institutions) holding roughly 1% each (BoT, 2010). Foreign owned banks in Tanzania account for about 48% of the banking industry's total assets. Except pension funds which finance own housing projects, the rest provide hosing financial assistance in terms of loans or mortgage finance to willing borrowers under specific conditions.

Kongela (2013) notes that property development financing and mortgage markets in Tanzania are poorly developed with average mortgage size between TZS 50 million and TZS 350 million ($31,000–$215,000), and hence most clients are high-income earners. In 2014 the limit had grown to TZS 500 million (US$ 312,500[13]). Some commercial banks have been offering mortgage finance to their employees, but most started only recently. Therefore, the only option for housing loans for low and middle income groups are a few housing microfinance institutions (MFI) involved in providing housing loans (Kongela, 2013: 111).

[13] During this time the exchange rate was US$ 1 equivalent to TZS 1,600

3.3.5 Public, semi-public and private developers

Table 3.1 shows the overall house [real estate] developers currently involved in real property production and investment. As the Table 3.1 indicates, the main housing producer is the informal sector which contributes 70% of the total housing stock in urban areas (Lugalla, 1995; UN-Habitat, 1996; UNCHS, 2002). House suppliers in this category are generally developers who build houses incrementally (step-by-step over a long period of time) as resources enable them; and the market caters for the urban poor (UN-Habitat, 2003; Stanley, 2007). In Tanzania, between 70 and 75% of the urban population is accommodated in informal housing that characteristically is of poor quality, devoid of adequate basic infrastructure such as access roads, water supply and drainage system and solid waste management system. Most of such housing is also dense and overcrowded with high rates of anti-social behaviour e.g. noisy, mugging and vandalism (Lugalla, 1995; NHC, 2004; Komu, 2008). Individual surveyed dwellings i.e. houses in planned areas contribute 13.5% of the total urban housing stock. However, it should be noted that all these are private initiatives most of which are funded through own savings.

The public sector, mainly through the National Housing Cooperation (NHC) and the Tanzania Building Agency (TBA), provides a limited amount of housing. In the past the sector aimed at government employees, but now the concern has also been to the general public. The same trends apply to housing provision through semi-public agencies such as parastatal pension funds and social security institutions which have also shifted from housing provision for selling and renting to their members to the general public. The medium and large-scale private real property developers contribute 3.9% of the total housing stock. Other suppliers include the central and local governments whose objective is still unchanged i.e. providing rental housing to central and local government workers.

Table 3.1: Key actors and their contribution in shelter development in Tanzania by 2000

Actors	Contribution
Individual (unsurveyed) dwellings	70.0%
Individual (surveyed) dwellings	13.5%
National Housing Corporation	5.1%
Private real estate developers	3.9%
Central government	3.0%
Pension institutions	2.4%
Local government authorities	2.1%
Total	**100%**

Source: Urban Solutions, 2012

3.3.6 Real estate agents/brokers

These are contact persons or middlemen responsible for liaising buyers and sellers on matters related to land and housing selling or renting. In other words, they ensure proper information flow from sellers to buyers and later on back to sellers. While brokers are informally serving as a link mainly between indigenous land/house sellers and prospective land or house buyers, real estate agents, who are largely registered by BRELA, do the same but in a professional way. These actors, regardless of their types, are also responsible for collecting information on land or housing units from sellers and disseminating to buyers. The information includes location, size, use, price and ownership. They are also involved in the transfer of land ownership from the original land occupiers or house owners to new land or house buyers.

3.3.7 Contractors

The Contractors Registration Board (CRB) enumerates and regulates activities of contractors involved in construction sector. It includes those engaged in the construction such as civil, building and electrical contractors usually contracted to undertake various building projects. The board classifies such contractors into three major groups basing on their capacity and project values: big or foreign (class I, II and III), medium (class VI and V) and small (class VI and VII) contractors.[14]

Class I contractors are entitled to undertake any type of project (no limitation in terms of project value) while class II can undertake projects with values up TZS 3,000 million (US$ 1,875,000[15]). Foreign contractors are restricted to register in classes I and II only. Projects with values up to TZS 2,200 million (US$ 1,375,000) can be contracted to class III contractors whereas class IV contractors can carry out projects which do not exceed TZS 1,200 million (US$ 750,000). Projects with values which do not go beyond TZS 600 million (US$ 375,000) can only be contracted to class V contractors while class VI and VII contractors are limited to projects whose values do not outstrip TZS 200 and 120 million (US$ 125,000 and 75,000 resp.). Thence, small contractors involve class IV and V contractors while big contractors are formed by class I, II and III. Interpretations made by Kongela (2013: 97) summaries that nearly 73% of the contracting enterprises in the construction industry in Tanzania are small, 21% are medium and only 6% are big contractors. In addition, 34% of Class I building contractors are foreigners.

3.3.8 Professionals and professional bodies

Worldwide professions with an advisory role on various aspects of housing [property] development and management include land economists, spatial/town planners, architects, valuation surveyors, quantity surveyors, property and facilities managers just to mention a few. Professionals work under stipulated procedures and guidelines put up by their respective professional bodies for purposes of safeguarding and ensuring professional code of conduct and uphold standards. Recognized professional bodies/organisation involved in one way or another in the Tanzanian real property development sector include the Town Planners Registration Board (TPRB), the Architects and Quantity Surveyors Registration Board (AQRB), the Engineers Registration Board (ERB), the Contractors Registration Board (CRB), the National Council of Professional Surveyors (NCPS). Many land economists are also members of national and regional professional bodies such as the Tanzania Institution of Valuers and Estate Agents (TIVEA) and African Real Estate Society (AfRES).

3.4 Institutions governing housing production and supply

3.4.1 Policy framework

The National Land Policy (1995)

Primarily, the policy aims to ensure that land value corresponds to the market economy. It also deals with access to land by all sections of society for rapid and sustainable socio-economic development as well as to redress shortfalls pertaining to land tenure, management and administration. Other objectives include recognizing, clarifying and securing existing rights in

[14] There are seven classes of contractors for building, civil, electrical and mechanical professionals in Tanzania. Class seven are not allowed to build storey buildings, class six are restricted to three storeys structures while class five are restricted to four storeys structures (http://www.crbtz.org/contractorsclass.asp). See also Mlinga (2001: 196-202); Olomi and Sutton (2012: 152); and Kongela (2013: 97)

[15] By August 2014, US$ 1 was equivalent to TZS 1,600

land, promoting equity in land holding, ensuring correct values of land and full and fair compensation when acquiring lands. Likewise, it is concerned with setting of ceilings on land ownership, streamlining the institutional arrangements in land management and dispute settlements for transparency purposes; and protecting land from degradation. Principally, the Minister responsible for land matters is the sole authority in land issues and the Commissioner for Lands is the delegated sole authority responsible for land administration in the country. The City, Municipal or Town Councils are responsible for urban land governance.

The National Human Settlements Development Policy (2000)

The policy promotes the development of sustainable human settlements with a remit to make serviced land available for shelter and human settlements development to all sections of the communities. It propagates the improvement and provision of infrastructure and social services before actual housing developments take place. Although it does not cover housing adequately, it remains the key policy instrument as far as housing delivery in Tanzania is concerned.

The National Housing Development Policy (2014)

Recognizing the housing deficit and lack of vibrant private real estate developers, the policy provides directions for the provision of incentives to attract private capital in delivery of affordable housing by private developers and partnerships. It also focuses on the provision of incentives to influence flow of private capital into housing development for low and medium-income groups in particular. Furthermore, it aims at enabling local authorities and utility agencies to provide infrastructure in areas designated for housing development. For the public institutions, the policy emphasizes on enabling public housing institutions to deliver houses for sale under different arrangements, e.g. tenant purchase schemes, as a way to promote home ownership. Social and pension funds are fortified to invest part of their funds in housing for sale to their members.

3.4.2 Legal framework

Township Rules Cap.101 (1930) and the Tanzania Building Regulations (2001)

The legislations provide building construction rules or regulations in urban areas as a way to ensure land development control with regard to set up rules. For instance, section 4 of the Township rules restricts erection of any building without a permit from a planning authority. Also, the laws specify the building completion time after the grant of building permit (36 months), the commencement of building erection after the grant of the permit (within six months). Conditions for building occupancy are also stipulated by this law. Most notably, section 12 gives powers to responsible authorities to inspect any building in the course of its erection or upon completion.

The Urban Planning Act No. 8 (2007) and the Town Planners Act No. 7 (2007)

The Urban Planning Act No.8 of 2007 replaced the Town and Country Planning Ordinance, Cap 378 of 1956 as amended in 1961. The Act, among other things, provides for the orderly and sustainable urban development, empowers planning authorities to prior prepare urban development plans and to enforce a comprehensive system of development control. It also provides for the declaration of planning urban areas by the Minister responsible for Urban Planning, in consultation with Local Authorities and Urban Planning Committees (UPC).

Similarly, procedures for the preparation of general and detailed schemes by local authorities and the approval by the Minister are issued. Still, The Act provides guidelines for the preparation of general planning, detailed schemes and specific project plans such as housing or satellite cities as planning and management tools to guide urban development. The Town Planners' Registration Act (2007) largely regulates the practice of the Town Planning Profession in the country.

The Land Act No. 4 (1999)/Land (Amendment) Act (2004)

This is the principal legislation on all land administration matters in the country. It proclaims all land in Tanzania a public property vested in the President as the trustee for and on behalf of all citizens. In other words, the clause means that the owner of land is the state and the citizens are occupiers or tenants. As noted earlier, the Act also specifies that an interest in land has a value and that value is taken into consideration in any transaction affecting that interest. Additionally, it recognizes the granted rights of occupancy, customary rights and informal rights as the three major land tenure systems in the country.

The Land Use Planning Act No. 6 (2007)

Basically, it provides for the procedures for preparation, administration and enforcement of land use plans. As provided in section 18, it stipulates the distinctive authorities of land use planning, their powers and functions. The power vested in authorities gives them authority to enforce approved land use plans, including taking defaulters to court of law.

Mortgage Finance (Special Provisions) Act No. 16 (2008)

The enactment and passing of the Act *inter alia* aimed at accelerating housing development through mortgage financing. The Act amended certain written laws with a view of providing for mortgage financing and enabling real estate developers to access long term loans from financial institutions, particularly banks, so as to facilitate housing production and supply to willing buyers. It also intends to facilitate the provision of funds for acquisition of low-cost housing. Since the former procedures for transfer of mortgaged property were long and cumbersome, the Act streamlines the long process to only three parties: the mortgagor, the bank and the Registrar of Titles. Other parties, including the Commissioner for Lands, are notified by the Registrar after the completion of the mortgage process. Under this Act, the bank and the borrower enter into a contract and if the borrower breaches the contract, an allowance notice of 60 days is provided within which s/he has to pay, after which his/her property is sold (to repay the loan) without involving the court.

The Unit Titles Act No. 16 (2008)

Generally, this Act aims at promoting housing production and the demand for mortgages. The Act, among other things, encourages real estate developers to construct high-rise buildings and multi-family structures, units or apartments and sell each unit to as many buyers. The buyer or owner of each unit is eligible to get a title deed after completing the sales agreement. Also, the Act provides for the management of the division of buildings into units, clusters, blocks and sections owned individually or co-owned and use of designated areas. The issuance of certificate of unit titles for the individual ownership of the units, and clusters or sections of the building are equally mentioned in the legislation. Lastly, management and resolution of disputes arising from the use of common property, provision for the use of common property by occupiers other than owners are also provided for.

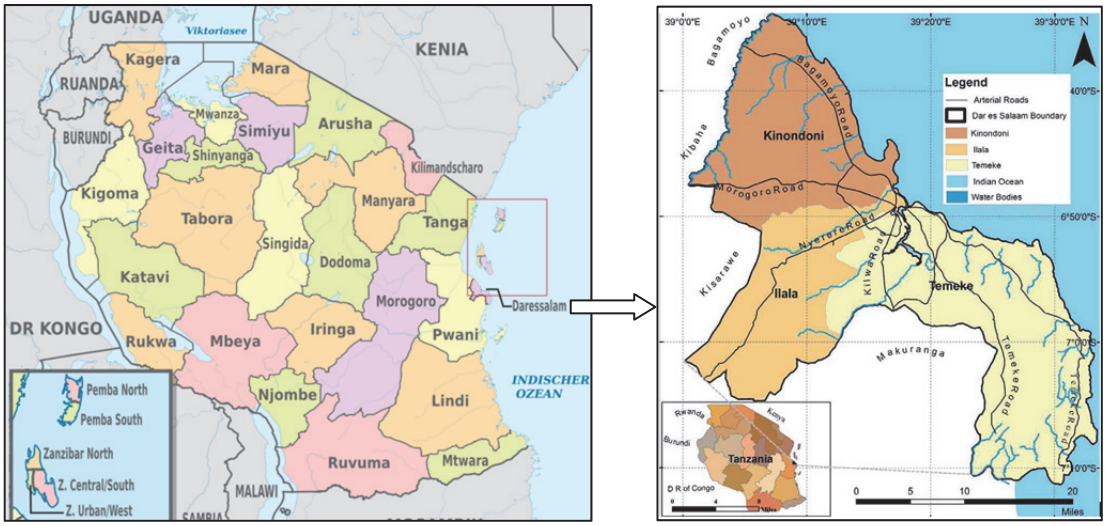
3.5 Introducing Dar es Salaam Metropolitan City

As noted earlier, this section introduces the area in which this study was conducted. It highlights the locational context, administrative structure, land coverage and density, population trends, employment status, land use changes and city growth trends and formation of housing sub-markets within Dar es Salaam metropolitan city.

3.5.1 Location and size

Dar es Salaam is the major city of Tanzania and the centre of Government administration, industry, commerce as well as the major port city with a total surface area of 1,800 square kilometres out of which 1,393 are land mass (DCC, 2004: 6). At a national level, it is located on the extreme Eastern part of the country bordered by Cost region and the Indian Ocean to the east. At a regional level, it is bordered by the districts of Bagamoyo to the north, Kibaha and Kisarawe to the west and Mkulanga to the south. The City stretches along the coast of the Indian Ocean for 100km from south to north and the Indian Ocean waters wash the eastern part of the City (see Map 3.1). While the ocean limits growth to the east, the city continues to expand inland with respectively higher densities along the major primary roads that radiate out from the city centre.

Map 3.1: National and regional setting - Location of Dar es Salaam



Google maps, 2015 and Bhayo, 2015: 40

3.5.2 Administrative structure, land coverage and density

Under the local government administrative system, Dar es Salaam region is divided into three main administrative levels: the region, the city and three municipalities/districts namely Kinondoni, Temeke and Ilala (URT, 1982). The regional administration is headed by the Regional Commissioner whereas the City Mayor heads the City Council and the three municipalities are the headship of their respective mayors. The districts are further divided into Divisions and Wards. As highlighted earlier, in the case of urban areas, wards are divided into streets/mitaa while in rural areas they are divided into villages and villages into smaller administrative units named hamlets. Wards are represented by ward Councillors at Municipal and City levels. Of the three municipalities (see Map 3.1), Temeke Municipality has the largest land surface area of 652 square kilometres followed by Kinondoni with 531 while Ilala Municipality has only 210 square kilometres. The National Population and Housing Census (2013) reports that

Ilala district has 1,220,520 persons; 1,369,200 persons live in Temeke Municipality while 1,775,133 persons live in Kinondoni district. In this regard, in terms of population density it is evident that Ilala has the highest population density (5,812 persons per km^2) than Kinondoni and Temeke (3,343 and 2,100 persons per km^2 respectively).

3.5.3 Population growth

The city's population is growing very fast due to increased birth and immigration rates. These factors make Dar es Salaam one of the fastest growing cities in Sub-Saharan Africa. As a metropolitan City in the country, it is two times larger than the second City (Mwanza) in terms of population (NBS, 2013: 2). For instance, results of the recent national population and housing census showed that in 2012 Dar es Salaam had around 4.4 million inhabitants with an annual growth rate of 5.6%. In the same period, Mwanza had approximately 2.8 million people growing at 3% per annum. Table 3.2 summarises population size and growth rates for Dar es Salaam from 1948 to 2012. Nonetheless, Dar es Salaam city population is estimated to double amounting to nine million by 2017 (IPP Media, 2014).

Table 3.2 Population increase in Dar es Salaam City (1948-2012)

Year	Population	Growth rate (%)	Urban population (%)
1948	69,227	8.6	-
1957	128,742	11.2	-
1967	272,821	11.8	-
1978	757,546	17.8	91.3
1988	1,360,850	4.8	88.6
2002	2,495,000	4.3	93.2
2012	4,364,541	5.6	100

Source: National population census 1948, 1957, 1978, 1988, 2002 and 2012

From Table 3.1 it can clearly be seen that the current population of Dar es Salaam is 10% of the country's total population which is about 45 million (NBS, 2013). Also, apparent from the table is the sharp increase of growth rates between 1957 and 1978; and a decrease between 1978 and 2002. During the 1948-1978 periods, Dar es Salaam was the only big urban centre (city) which had more opportunities than any other urban centre in the country, and therefore, rural-urban migration was at the peak. On the other hand, the growth rate decreased to 4.8% and 4.3% in 1988 and 2002 respectively. There were two basic reasons for the decrease. The first seems to have been related to the development of other secondary cities such as Mwanza, Mbeya and Arusha, which acted as rival poles of attraction for new residents. The second is related to family planning campaigns which propagated a decreased birth rate (URT, 2006: 10).

The rapid population increase has inevitably increased pressure on land particularly the need for land, housing, infrastructure development as well as on other major land uses. More pressure has also been exerted on overstrained urban infrastructure and services, many of which have not been maintained or expanded to cope with the rapid urban growth.

3.5.4 Employment

Estimations show that about 95% of the City residents are engaged in the informal sector while 5% are employed in the formal sector (DCC, 2004: 38). The informal activities, which the largest population carry out, include the production of informal products, retail of informal products and

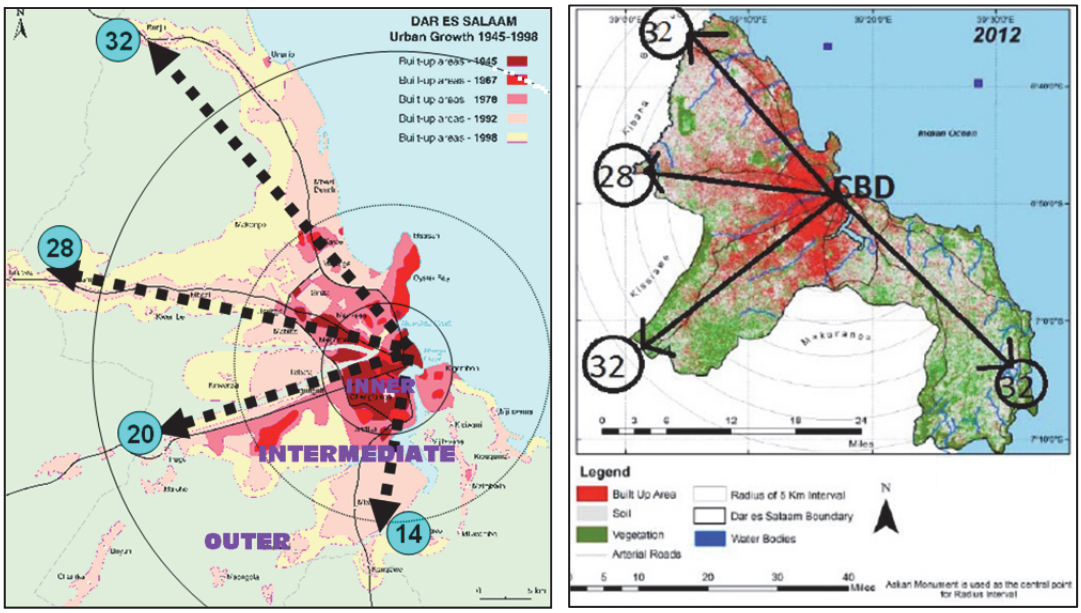
employment in the formal sector through informal arrangements. The main formal sectors which accommodate this population are the government and public cooperation (ibid). Of those working in the urban informal sector, 66% depend entirely on informal activities for a livelihood while 16% use these activities as a secondary activity (URT, 2006). At household level, 62% of the households in Dar es Salaam are engaged in informal sector activities (URT, 2001a). Nevertheless, in the period between 2001 and 2006, the number of households engaged in the informal sector had been slightly decreased from 62% to 57% as noted in the integrated labour survey of 2006 (URT, 2006).

3.5.5 City growth, land use change and formation of housing sub-markets

Dar es Salaam, the metropolitan city in Tanzania, is experiencing rapid urbanization rates. As highlighted above, in 2012 the city had 4.36 million inhabitants (10%) of the country's total population of 44,928,923 in comparison with 69,277 persons in 1948. The increase in population has also increased demand for housing land, housing units, spatial city boundary expansion and land use changes (ibid). Kraas (2004) cited in Ginzel (2012: 96) claims that like other metropolises and megacities in the Global South, Dar es Salaam's spatial development is a "ribbon development" or an amoebae-like expansion stemming from the city core towards all directions; except in the Eastern side where the Indian Ocean is a barrier.

Spatially, population increase with increased housing demand has also influenced land use change and expansion of the city along major roads as illustrated on Map 3.2.

Map 3.2: Spatial growth of DSM along major arterial roads (1945-2012)



Source: Lupala, 2008; Lupala and Bhayo, 2014

Studies (Lupala, 2002: 32-35 and URT, 2013: 31-32) have shown that within the periods of 1930s and 2000s the city's built-up area as well as the radii from the city center had exponentially increased. In the 1930s the built-up area was limited to only 122ha within a radius of 2km. By 1945 when the population was 60,000 inhabitants, the spatial coverage had reached 463ha within the same radius. A rapid spatial expansion took place between 1945 and 1963 when population shot to 272,821 people, the urbanized area being 3,081ha and the radius extending to 6km. The period of 1967 and 1978 was accompanied by quadrupling of population of 782,000 inhabitants

and spatial expansion to 11,331ha as well as 14km radius. The same expansion trends pervaded the decade of 1980-1990 whereby the built-up area of around 21,000ha and more than 18km radius were reached. By the year 2001 the urbanized part of the Dar es Salaam covered 57,211 hectares and with 3,000,000 people. At this time, the radius was 32km while the DCC (2008) reports that the city had expanded beyond 32km from the city core. With a population of about 4.5 million in 2012, the spatial extension of the city stretched over 40 km from North to South and 35km from East to West (NBS, 2013: 25).

With the guidance of the general planning schemes (master plans) on spatial development, Armstrong (1986) argues that a series of master plans proposed for Dar es Salaam not only had little influence on city development but also were wholly not beneficial. The author's arguments are the plans could not only accommodate the demand due to high population; they were segregative in nature as well. Armstrong (1986: 46), Kironde (1994: 258), Lugalla (1995: 14), Lupala (2002) and Smiley (2009: 190) argue that the 1949 (first) and 1968 (second) master plans for Dar es Salaam continued to accentuate the notions of colonial legacy, recommending the Western strict city planning models. They advocated zones for Europeans, Asians and Africans representing the low, medium and high density respectively. Schmetzer (1982) cited in Šliužas (2004: 83-92) adds that the plan(s), being prepared through top-down approach, assumed that many Africans would settle in peri-urban areas that were organised along traditional lines in which high building standards would not apply. Thence, plans identified the sizes of the plots: the European residential zone that was well-served, larger plots of 1 acre and above were designed. Also, two-storeyed buildings with straight and wide boulevards, well lavished in verdure were built. In each plot there was a large proportion of land being left for experimental botanical gardens, some of the characteristic features of planning cities that were fashionable in Europe during that period.[16] Plots of 1/6 to ½ acre were set aside for Asians in the adjoining medium density zones and multi-storey buildings limited to three storeys were built. In the area strictly reserved for Africans with limited infrastructure and few services of low standard, plots were less than ¼ acre and traditional houses commonly referred to as *Swahili houses* were built. These were the dominant *Zaramo*[17] single storey traditional houses comprising one main building facing the street, a backyard and outer buildings (Kironde, 1994; Lugalla, 1995; Lupala, 2002; Nguluma, 2003; Moshi, 2009).

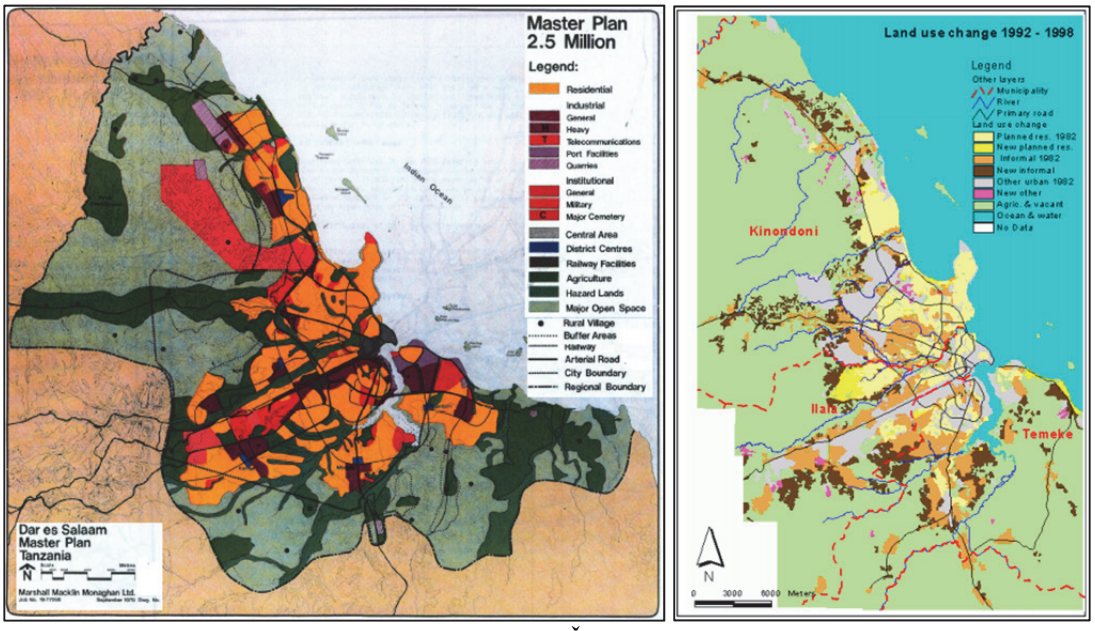
As population increased, new demands for land and housing emerged and therefore the master plans in place were overwhelmed by high demands. Statistics provide that before the first plan was prepared, Dar es Salaam had a population of 69,277 in 1948. It increased to 128,742 in 1957, and later from 272,821 in 1967 to 782,000 in 1978 (URT, 2009: 19). Bryceson (2008: 16) notes that during the late 1960s and 1970s the city's residential land was roughly 12%. Yet, another clear indicator of the population pressure on proposed land uses was the emergence and increase of informal settlements from one in 1891 to 16 in 1978. Rapid urban population increase also connoted higher demand for housing land and housing.

In 1979 another Master Plan was prepared to accommodate a number of policy changes that, to a greater extent, affected the implementation of the previous plans (Map 3.3). While the city population was 2.5 million people, the plan marked a further move away from rigidly segregated functional zoning for different uses. It aimed to be less radical in terms of resettlement

[16] The planning ideas that pervaded town planning during this period were the Ebenezer Howard's *garden city* concept (1902) where small units for the working class had gardens in their plots.
[17] A dominant native tribe in Dar es Salaam region

and redevelopment of slums and informal settlements which existed since 1963 alongside industrial zones (Armstrong, 1986: 59; Lupala, 2002: 49). This is due to the fact that starting from 1972 advocacy to squatter upgrading and sites and services schemes were more pronounced as opposed to slum clearance. It also recommended land use extensions be effected along the main roads of Bagamoyo, Kilwa, Morogoro and Pugu (ibid). Till 1996, residential land use had mounted to 26% from 12% of 1970s gross land. This change was attributed to the sheer weight of rapid urban growth, the increase of informal housing sub-market and density. In 1988, the number of informal settlements was reported to have grown to 25 and 56 by 2002. The main features of informal settlements include rapid development albeit without development policies (plot ratio, plot coverage, setbacks) to guide them, inefficient land/housing markets, access to safe water, sanitation and other infrastructure. Others include overcrowding, insecure residential status and poor structural quality of housing. Brennan et al. (2007: 115) sum up noting that the government's ability and attempts to regulate urban land use were dwarfed by inadequate and inappropriate administrative frameworks and dwindling resources.

Map 3.3: The 1979 DSM Master Plan land uses vs land use by 1998



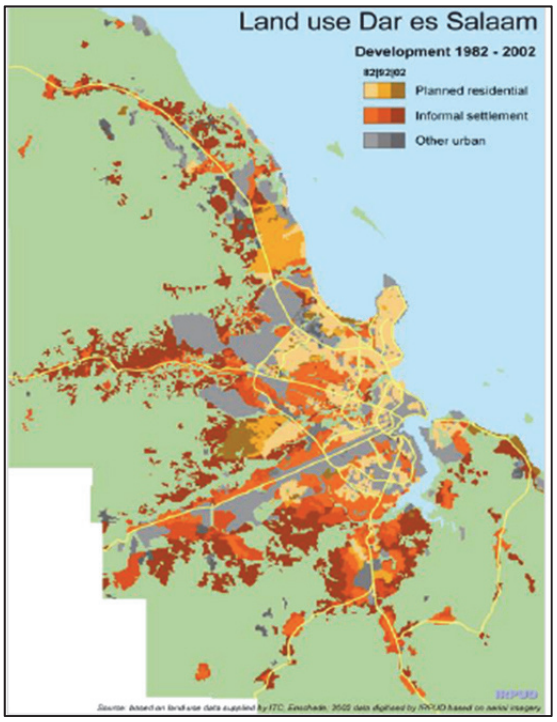
Source: URT, 1979: 77 and Šliužas, 2004: 145

The ever changing land use goes hand in hand with the cropping up of informal settlements and so does the informal housing sub-market. Recent studies, [Kyessi, 2008; Magigi, 2013; Kalugila, 2013; URT, 2013], show that the number had grown and reached over 100 settlements in 2008. While this is the case, at least eight out of every ten of the city's residents live in unplanned settlements that are scattered in different parts (DCC, 2008; URT, 2013). The statistics, further show that only 20% of the city built-up area is planned; and thus forms the formal housing sub-market. It should also be noted that spatial expansion and land use changes are coherent with changes with housing types and density, particularly in accessible and centrally located areas.

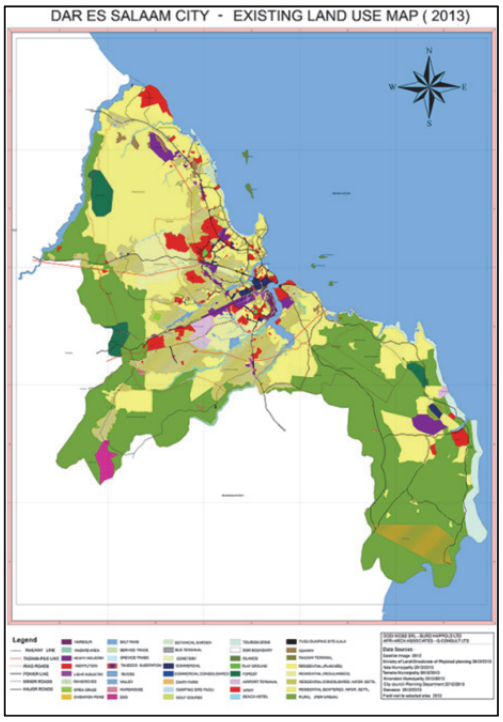
The current (2013) land uses of Dar es Salaam (Map 3.5), as compared to land uses in 2002 (Map 3.4), still shows that major land uses in Dar es Salaam are formal and informal residential by 39.8%, office and community facilities 4.8%, industry an harbour 1.6%, airport/train/bus terminal 1.3%, water courses 2.8%, recreational 1.8% while 47.9% comprise

others including agriculture. Moreover, 25% of settlement pattern comprise few pockets of planned areas within the mosaic of an unplanned urban landscape comprising 75% of residential land (URT, 2013: 24-26).

Map 3.4: DSM land uses (1982-2002)



Map 3.5: DSM land uses (2013)



Source: Hill and Linder, 2010:125 and URT, 2013

3.6 Concluding summary

In this chapter, housing production/supply in urban areas over different periods all over the country has been discussed. It has thus been deduced that the amount of housing units produced in urban Tanzania against population increase has been dwindling, widening the deficit from 2.2 million units in 2000 to three million units in 2013 with an annual demand of 200,000 units. Owing to the failure of the government to provide housing to the citizens, the government shifted from being a provider as it used to be during the socialist era to an enabler during the market-oriented period. During this period, the government made some reforms on land polices and laws, construction industry and housing finance as responses towards the prevailing housing backlog. Currently, housing development involves many actors of which the informal sector takes the lead. Also, the real estate private sector is intensifying due to neo-liberal market principles.

Regarding Dar es Salaam in which this study was conducted, it is inferred that the city accommodates 10% of the country's total population which grows at 5.6% per annum. While 95% of its residents depend on the informal sector for their livelihood, only 5% are employees in the public sector. This means that the majority have low and irregular incomes to afford their basic needs including housing expenses. Owing to this, the city has expanded beyond 35km from the CBD largely through informal settlements development. Also, as noted earlier, sharp population increase has increased demand for housing and basic infrastructure services. Furthermore, the increase has resulted into terrific spatial growth of the city as well as morphological and functional conversions in built-up areas.

Section two:
Research design and methodological concerns

4 RESEARCH DESIGN AND METHODOLOGY

Discussed in this chapter are the detailed procedure and a chain of activities that were undertaken since the beginning to the end of this research. I begin with explaining the research process before embarking on the underlying paradigms of research and the choice of the study design. Following the research design are the selection of the case study area(s) and sampling procedures. Then the data collection process, methods and instruments employed, types of data collected by each method and instrument as well as ethical issues taken into account are presented. Before winding up the chapter by explaining the methodological challenges or constraints encountered, I explain how data collected from the field were managed. Specifically, reference is made to qualitative and quantitative data cleaning, analysis and the instruments involved and supported presentation of the findings.

4.1 Research design

Kumar (2005:84) referring to Kerlinger (1986: 279) defines research design as a plan, structure and strategy of investigation conceived to obtain answers to research questions and/or problems. He further elaborates that it includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data (ibid). In the same vein, Yin (1994: 25-26; 2009: 26; 2011: 75-76, 82) relates research design to a logical sequence that links data to be collected and the conclusions to be drawn to the initial research questions and propositions of the study or basically, the structure of the study. Furthermore, Bhattacherjee (2012: 37) adds that a research design is a "blueprint" for empirical research aimed at answering specific research questions or testing specific hypotheses, and must specify at least three processes: data collection, instrument development and sampling.

The above definitions entail that a research design encompasses the procedures and methods to be employed in conducting a scientific research. Kumar (2005: 84) put forward two major functions of a research design:

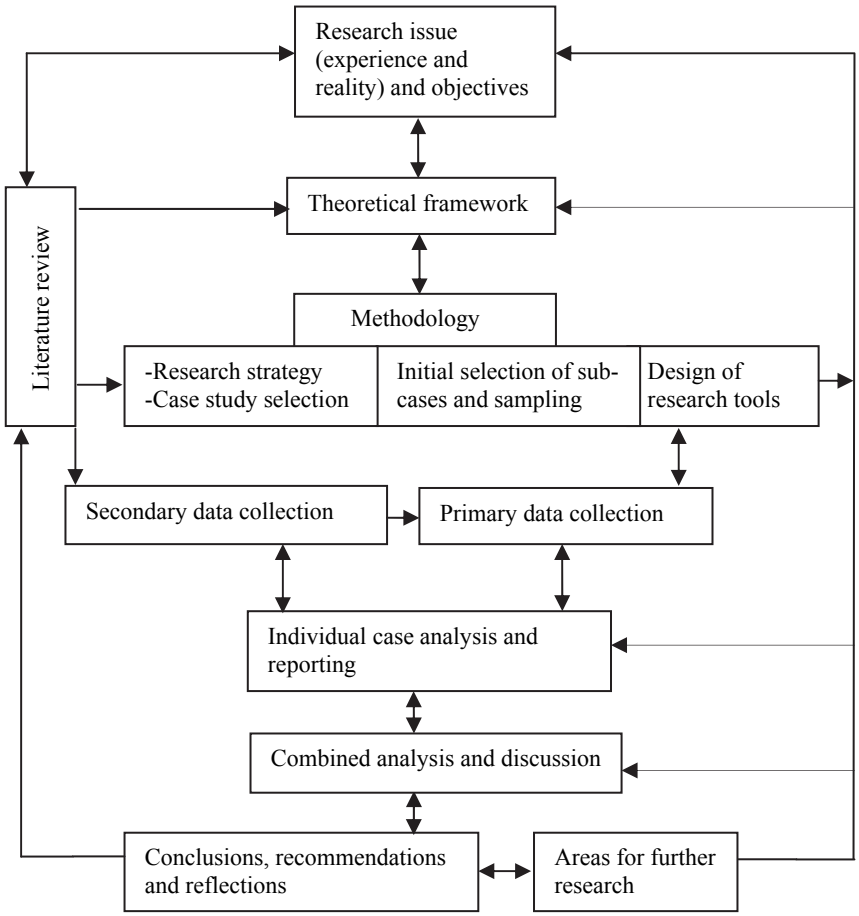
i. to conceptualize an operational plan to undertake the various procedures and tasks needed to complete a study; and
ii. to ensure that the procedures are adequate to obtain valid, objective and accurate answers to the research questions.

As far as any type of process involves steps to be navigated through in order to arrive at a desired end, Kumar (2005: 16-25) points out that the research design consists of eight main steps. Arranged in a chronological order, they include formulating a research problem, conceptualizing a research design, constructing an instrument for data collection, selecting a sample, writing a research proposal, data collection, processing and displaying, and writing a research report.

Owing to the above remarks, Figure 4.1 presents the research design for this work. It begins with the formulation of a research issue and objectives through the finalization of the thesis. The study began with the establishment of the research theme from the reality and researcher's ten years' experience in Dar es Salaam as a student (2002-2006), a public employee-urban planner (2006-2008), and later a University academic member of staff. During this time, considerable changes on housing types and land use were observed in different localities in the city. These raise an alarm particularly with regard to housing demand, supply, prices and rents

which were associated with the changes. The experience was enriched by literature particularly in terms of conceptual and methodological contexts within which this study was undertaken. The methodological framework consisted of the choice of research strategy, initial selection of sub-cases as well as the design of data collection methods and instruments. Again, with the aid the methodology, the data collection from secondary and primary sources prevailed. Primary data collection was preceded by secondary data collection whereby official documents relevant in this study were collected and sub-cases were validated. As data collection was being carried out; initial data analysis, from which preliminary findings for individual sub-cases were devised, was concurrently on-going. After fieldwork activities, data organization, cleaning and analysis was carried out before reporting on individual sub-case was done (see Yin, 1994: 49). Later on the nexus of findings from the two sub-cases was made before conclusions, recommendations and methodological reflections were generated.

Figure 4.1: The research process



Source: Author's construct, 2013

4.2 Choice of a case study research strategy

In this study, a case study research strategy was most suitable than experiments, surveys, archival (documentary) analysis and histories. The choice of a case study strategy in this work was legitimized by five main criteria. The first criterion was the fact that the issues being studied i.e. housing production and supply through conversion of dwellings are contemporary phenomena taking place in a particular context; which call for an in-depth study (Yin, 2003, 2009, 2011;

Hancock and Algozzine, 2006; Denscombe, 2010). The rest of the strategies did not fit because of being unable to investigate contemporary issues.

Secondly, the main questions of this research were to investigate and document *how* housing space is (re)produced and supplied in built-up areas (research question1) and *what* are the consequences of housing (re)development on the urban morphology in such areas (research question 2). The how- and what-type questions suggest inquiry since housing development is a process and it involves many institutions and actors with different roles. Therefore, the nature of the research questions implied conducting an empirical investigation of a contemporary issue encompassing processes, events, persons, social groups and institutions (Kumar, 2005: 113); whose study involves the use of multiple sources of evidence (Yin, 2003: 6; Hancock and Algozzine, 2006: 16). Therefore, basing on these arguments, a combination of exploratory and explanatory accounts towards identifying and understanding housing market mechanisms and their spatial outcomes was required.

Thirdly, the research took place in a real-world situation. Therefore, I as a researcher had no control over the behaviour of actors and the events that take place in the study area as opposed to experiments (Yin, 2002). In other words, it was not possible to separate housing (re)production/supply and market as processes from the natural setting in which they occur.

Fourthly, the processes being studied were in the context of a city fragment with defined spatial and time boundaries (Yin, 2003: 21; Hancock and Algozzine, 2006: 15). Hence it was necessary to emphasize the role of the context in which they occur at a particular time in order to relate the issues with the theoretical background and the reality.

Lastly, because Dar es Salaam is a metropolitan City in the country with overlapping urban planning and housing development processes, issues and challenges; the sub-cases selected for this study are typical of all cases of certain types within the City and in other urban centres. Therefore, through intensive analysis, generalizations can be made and may be applicable to other cases of the same type (Kumar, 2005: 113).

4.3 Methodological approach

Literature, e.g. Creswell (2007, 2009; Yin, 2003, 2011), provides three main approaches frequently used in research. These include qualitative, quantitative and mixed methods approach. The use of one of these approaches depends much on the nature of the study.

4.3.1 Qualitative research approach

This approach involves collecting data with a specific level of focus, analysing the same by looking for patterns and lastly developing a theory from the study results. Different scholars have provided wide knowledge about this paradigm. For example, Creswell (2007: 37; 2009: 4) terms qualitative research as a process of studying the research problem in its natural setting by exploring and understanding the meaning that individuals or groups impute to a social or human problem rather than studying the subjects in a laboratory. Hence qualitative studies aim to provide an illumination and understanding of complex psychosocial issues and are most useful for answering humanistic *"why?"* and *"how?"* questions (Marshall, 1996: 522; Yin, 1994; Yin, 2011). Also, Dawson (2009: 14) and Stake (2010: 11) opine that qualitative research relies primarily on human perception and understanding. It is therefore an approach or strategy that usually emphasises words rather than quantification in the collection and analysis of data (Bryman, 2012). Spatially, qualitative research approach involves vector format (points, lines,

polygons) geospatial data usually derived from high resolution satellite or aerial images by heads-up/or on-screen digitization or other GIS processes (Lwin et al., 2012: 237-238). Therefore, such qualitative data are suitable in generating reference or navigational maps frequently useful in navigating over the earth surface, providing public information services and land use properties and property assessment (Verd and Porcel, 2012; Lwin et al., 2012; De Folice, 2012). Spatial data particularly the qualitative conception of density may also be represented as low, medium or high (Pafka, 2013) and the qualitative site development standards include designs, layouts, mixture of new buildings and landscaping (Dublin City Council, 2005). On the other hand, Yin (2011: 3-4) discusses the main reason of doing a qualitative research holding that qualitative research is useful in studying a real-world setting, discovering how people cope and thrive in that setting, and capturing the contextual richness of people's everyday lives.

This approach, according to Creswell (2009: 12-13), involves five strategies: ethnography, grounded theory, case studies, phenomenological and narrative. However, when and how to use each strategy depends on *inter alia* the type of research questions posed and how the researcher controls behavioural events. Ethnography is a strategy of inquiry in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting primarily observational and interview data. In the grounded theory strategy the researcher derives a general, abstract theory of a process, action or interaction in the view of participants while as case studies are time and activity bound, the researcher explores in depth a program, event, activity, process or one or more individuals. Phenomenological strategy enables the researcher to inquire and identify the essence of human [lived] experiences [histories] about a phenomenon as described by participants. Lastly, using narrative research strategy the researcher studies the life trajectories [life stories] of one or more individuals in a chronological order (ibid).

Concerning sample sizes, Marshall (1996: 523) claims small samples and in most cases purposive or snowball sampling techniques are usually involved. Small samples are preferred because methods used such as in-depth interviews are time and labour intensive but also because a large number of people are not needed for the purposes of statistical analysis or to make generalizations from the results. Data for qualitative analysis basically come from fieldwork by the researcher spending a considerable time in the study area. Regarding methods to be used to collect qualitative data, Patton (2002: 4-5) and Stake (2010: 20) list interviewing (in-depth, open-ended), observation and written documents (artifacts) as the main three kinds of qualitative data collection methods. According to them, interviews yield direct quotations from people about their experiences, opinions, feelings and knowledge. The data from observations consist of detailed descriptions of people's activities, behaviours, actions, and the full range of interpersonal interactions and organizational processes that are part of observable human experience. Document analysis includes studying excerpts, quotations or entire passages from organizational or program records, memoranda and correspondence; official publications and reports, personal diaries and open-ended written responses to questionnaires and surveys (ibid). In other words, qualitative research methods are built around experiential understanding (Stake, 2010: 20). Hence, the above descriptions on the meaning of qualitative research and data collection methods imply that qualitative research approach enables researchers to collect data themselves using multiple sources with the aim of understanding realities and the meanings of the problem from the participants' or subjects' views.

4.3.2 Quantitative research approach

In quantitative research, numbers are useful in deriving relationships between or among research variables. Quantitative approach provides data guides in understanding the magnitude and scale of a phenomenon by providing a numeric picture of its impact upon affected communities. It addresses the questions *"how many"* and *"how much"* suggesting measuring or counting. Also known as deductive or theory testing approach, it is highly associated with scientific investigation (experimental design) although non-experimental designs such as surveys are involved in this approach as well (Creswell, 2009: 12). While experimental research seeks to determine if a specific treatment influences an outcome (Keppel, 1991), survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by probing a (statistical) sample of that population with the intent of generalizing from a sample to a population (Babbie, 1990). In this case, the researcher studies what others have done, reviews existing theories of whatever phenomenon s/he is studying and then tests whether the results support the theory propositions or do not.

Thus, quantitative research approach, unlike qualitative study, is a means for testing objective theories by examining the relationship among variables which are usually measured on instruments so that numerical data can be analysed using statistical procedures (Creswell, 2009: 4). Quantitative research generates statistics through the use of large-scale survey research, using methods such as questionnaires or structured interviews and measurements (Dawson, 2009: 15). In addition, Yin (2011: 282) adds experiments, quasi-experiments or statistical studies of archival data as they might be used in demography, epidemiology or economics. Balnaves and Caputi (2001: 33) contend that it [observation] is the key to quantitative research methods. Data collection methods of this type of research approach are defined in the early planning stage although the need to use other methods may arise as the research progresses.

De Folice (2012) and Lwin et al. (2012) discuss the notion of some spatial data as widely used in the field of town/urban planning, natural resource management, forest types mapping, hydrological modelling, transportation planning, etc. being quantitative in nature. The quantitative nature of spatial data depends on the data format, types, methods and instruments of collecting and analysis or spatial modelling. In general, all spatial data in raster format (composed of pixels) commonly derived from medium resolution remote sensing are quantitative because they represent the actual quantity of land surface characteristics in each pixel. Therefore data or maps generated from quantitative approach answer the question "how much" because of their descriptive information (Lwin et al., 2012: 238). Thence, city or urban planners may use land use/cover data by human activities and biophysical process to identify and map built-up-areas inside the city and consequently produce thematic maps (ibid). Later on, these maps are used to communicate geographic concepts like the distribution of densities, spatial relationships, magnitudes, movements, etc.[18] Furthermore, literature [e.g. Dublin City Council, 2005, 2011; Boyko and Cooper, 2011 and Pafka, 2013] on the general site development standards express density as a measure of the relationship between buildings and their surrounding space quantitatively using unit measures. They enumerate quantitative density elements to include dwelling density, building height, plot coverage, floor area ratio, number of people per hectare and road standards.

With regard to data analysis, numerical data can be analysed using statistical procedures (Creswell, 2003: 153:154; Bryman, 2012) while spatial data are analysed using GIS or by

[18] http://www.earthonlinemedia.com/ebooks/tpe_3e/essentials/map_types.html

comparing extremes. With regard to sample size and sampling techniques, Marshall (1996: 522) and Creswell (2009) applaud large sample sizes representative of the population being studied and randomized and non-randomized techniques being normally employed. Nonetheless, Creswell (2009: 148, 217) admonishes the use of a non-random and appraises a random or probability samples. Creswell applauds random sampling over non-random because of its ability to provide equal chance for each individual in the population being studied to be a representative of that population.

4.3.3 Mixed research approach

This is an approach to inquiry that combines various methods, i.e. may associate both qualitative and quantitative approaches. It involves philosophical assumptions, the use of qualitative, quantitative and the mixing of both approaches in a study (Creswell, 2009: 4). This approach is paramount for four main reasons. Foremost, it serves as a neutralizer or canceller of the biases resulting from the use of any single method due to its limitations. Secondly, it is a means of seeking convergence across both methods (triangulation of data sources). Thirdly, it integrates or connects qualitative and quantitative data e.g. using results from one study to help identify participants to study or questions to ask for another method. Lastly, it is used to reinforce results from both approaches e.g. qualitative quotes to support statistical results.

Howe (2004: 54) considers the quantitative methods component as playing an auxiliary role in a mixed methods framework. Greene et al. (1989) list five specific reasons that researchers should consider when using mixed methods. They encompass methods triangulation, complementarity, research project development, initiation and expansion. Concerning triangulation, Jick (1979: 602), Niehof (1999) and Yin (2011: 81-82) emphasise the use of more than one method while studying the same research question in order to examine the same dimension of a research problem. Complementarity allows the researcher to gain a full understanding of the research problem, to clarify a given research result as well as cross-validate research findings. While in development, results from one methods helps to improve or inform the other method, initiation is useful when a study's findings may raise questions or contradictions that will require clarification, thus initiating a new study. Expansion is intended to spread the breadth and range of the inquiry (further researches).

Principally, mixed approach consists of three strategies (Creswell, 2009: 14-15).

- Sequential mixed methods: the researcher seeks to elaborate on or expand on the findings of one method with another method. This may involve beginning with a qualitative interview for exploratory purposes and following up with a quantitative, survey method with a large sample so that the researcher can generalize results to a population.

- Concurrent (parallel) mixed methods: the researcher converges or merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem (see Yin, 2011: 292). Therefore, the researcher collects both types of data at the same time and then integrates the information in the interpretation of the overall results. Also, in this design, the researcher may embed one smaller form of data within another larger data collection in order to analyse different types of questions (the qualitative addresses the process while the quantitative the outcomes).

- Transformative mixed methods: the researcher uses a theoretical lens as an overarching perspective within a design that contains both quantitative and qualitative data. The lens provides a framework for topics of interest, methods for collecting data and outcomes or changes anticipated by the study. Within this lens could be a data collection method that involves a sequential or a concurrent approach.

In light of the above literature and the nature of the research questions for this study, a sequential mixed approach fits more than pure qualitative or pure quantitative. The following section describes the basis for the selection of this approach over the rest.

4.4 Selecting a mixed research approach

Basing on the research questions, this study has two main parts. The focus of the first part is on the housing production and supply mechanisms in the case studies. The second seeks to explore whether housing space production affects the urban fabric. While the former has mainly been addressed through qualitative strategy, the latter has been effected with the application of quantitative strategy. In other words, the first part is investigative or exploratory in nature since the detailed research questions outlined in section 2.8 focus on how, what and who. This implies that they are mostly qualitative seeking to collect data on factual information, opinions and perceptions; suggesting the use of qualitative approach (Dawson, 2009: 14; Stake, 2010: 11). In this regard, interviews with different respondents including urban professionals and my own observations were used to gather such information.

However, qualitative spatial information gathered from interviews needed to be quantified in order to justify the relationship between housing production/supply and the use of land [plots]. Therefore, the quantitative approach was inevitable as the main research question seeks to identify the spatial outcomes of housing redevelopment processes (Dublin City Council, 2005, 2011; Boyko and Cooper, 2011; De Folice, 2012; Lwin et al., 2012; Pafka, 2013). The use of physical surveys or archives other than other methods was more appropriate in this aspect. Also, mixing the two approaches created opportunity for method triangulation (Yin, 2011: 81-82). However, it should be known that in this aspect, the relationship being referred to here was not drawn through the use of statistical procedures such as Chi-square as noted in the discussion above but rather by examining spatial density elements in order to draw conclusions. Hence, it was not fair to involve only qualitative or quantitative approach because of the limitations of each approach. Therefore, the four strengths of mixed methods approach as outlined and discussed above were taken as an advantage in the choice of the approach. Thus, a qualitative and quantitative sequential exploratory design as Figure 4.2 illustrates was more suitable.

Figure 4.2: Sequential exploratory research design

Source: Creswell, 2009: 209

Emanating from above, housing market is essentially a study that can be associated with social science, based primarily on empirical evidences from the actual undertakings of people in their daily lives with regard to demand, production/supply and space use. With the intentions of

studying the processes underpinned in the housing market and later on from these processes, spatial issues and data on spatial density as outcomes of the housing market can be revealed. The qualitative approach enabled the research to work within real-life situation within the field of housing market covering knowledge such as how house developers produce and supply housing, why they are motivated to engage in property development, and how they access finance and land. Related to the above, housing market involves a series of processes, institutions, activities and actors which may have effects on plot space use and later on the urban morphology as a whole.

4.5 Selecting a case and its rationale

Experience from literature shows that selecting a case study area is sometimes challenging and therefore there is a need to establish parameters for the selection. Patton (1987: 52) and Flyvberg (1999) put clear the basic criteria for selecting the case study areas. The first fundamental criterion mentioned is the idea that the strength of purposeful sampling lies in selecting *information rich cases.* According to Patton, information rich cases are those from which one can learn a great deal about issues pertinent to the research and central to the purpose of valuation. Similarly, Stake (1995) argued that it is useful to select a case from which one can maximise what can be learnt from it. Moreover, Patton and Flyvberg argued that the selection of case study areas should focus on cases which are interesting, which can answer what the researcher wants to study, which fit the purpose of the study, accessible as well as those from which data can be accessible easily (Patton, 1987: 51-52; Flyvberg, 1999: 120). Flyvberg (2001: 78-79) further indicates that the researcher may select extreme or deviant cases in terms of their success or problems. Others include maximum variant i.e. as different as possible cases, typical or representative cases, critical cases and paradigmatic cases. Critical cases are identified by the argument: if it is valid for this case, then it is valid for all (or many) cases; while paradigmatic cases define a paradigm (ibid).

More criteria include snowball or chain sampling, criterion sampling, confirmatory and discomforting cases (Patton, 1987). According to Patton, snowball or chain sampling facilitates the identification of "key informants" or cases of special importance. Criterion sampling is whereby cases fulfil certain predetermined criteria, characteristics and/or need to be identified for in-depth study while confirmatory and discomforting cases fit into already emergent patterns and they add richness, depth and creditability to confirm or dis-confirm preliminary findings of the research. Of less significance in these criteria, though may contribute towards case selection, they include politically important cases and convenience sampling. The last two as described by Patton are least desirable in selecting cases (ibid).

4.5.1 Study city and municipality: Dar es Salaam, Ilala

Dar es Salaam metropolitan city (see Map 3.1), being the largest sea port, industrial, commercial and administrative centre in Tanzania, was the selected city within which this study was conducted. The city has a long history of urban planning and human settlements development processes, issues and challenges than other cities in the country. Owing to the underlying socio-economic and historical factors, it attracts more people and hence exhibits a variety high rate of settlements (re)development and resulting into different housing sub-markets and changing urban morphologies. As a metropolitan city, it is two times larger than the second city (Mwanza) in

terms of population (NBS, 2013: 2). The totality of the criteria applied for the choice of Dar es Salaam city includes the facts that:

- it is the major city accommodating about 10% of the total Tanzania mainland's population and experiencing high population growth of 5.6% per annum leading to high housing demand and limited supply as compared to other urban areas;
- it has higher spatial urban growth rate than any other city in the country. For instance, currently the city's radius has increased beyond 32km along the major roads suggesting high population increase and density (3,133 persons per square kilometre) and high demand for housing land and housing; and
- it has high migration rates of different income groups including rural-urban migrants, professionals, businessmen and government officials.

The above arguments did not only make Dar es Salaam City an information rich area but qualified it to be an extreme case as well.

Although Ilala Municipality has the smallest portion of land mass (210km^2) as compared to 652 and 531km^2 for Temeke and Kinondoni Municipalities respectively, it was chosen as the district of investigation for this study. As noted earlier in chapter three, despite its smallest land mass, population and density have been growing rapidly suggesting an increase in the demand for land and housing. Besides this, there are remarkable changes in land use, variant building types and densities which reflect housing market pressures in various localities in the municipality.

4.5.2 Kariakoo and Upanga sub-cases and sampling

The selection criteria outlined in section 4.5.1, information from literature and own experience provided the preliminary indications of cases which could be used as areas of investigation for this study. Literature and own experience were helpful in indicating housing density and land use changes in different parts of the city and within the municipality. Therefore, insights on settlements that had attained high degrees of land use and density changes were drawn and sub-cases for this study were earmarked. Resulting from the preliminary selection from literature and own experience, Oysterbay, Upanga, Kariakoo and Magomeni qualified to be case study settlements. The final validation of cases to be studied was done during the initial stages of fieldwork. Pre-prepared selection criteria, which Patton (1987) refers to as criterion sub-case selection, were used during the validation of sub-cases. Therefore, the cases to be selected had inter alia to meet the following:

- the cases were located within inner or intermediate city areas. This helped in making a link between locations of the cases with the type of land uses and density;
- the major land uses were limited to only residential or commercial-residential;
- the present residential or mixed land uses are a result of multifaceted housing production and supply systems which have taken or are still taking place; and
- the cases are within the formal/planned neighbourhoods.

It was hence found that areas such as Kariakoo, Magomeni, Upanga and Oysterbay/Masaki in Ilala Municipality, Msasani and Mbezi Beach in Kinondoni Municipality met these conditions.

Out of these listed areas, a further selection of two sub-cases was made by the use of predetermined and set out criteria as presented in Table 4.1.

Table 4.1: Selection of cases

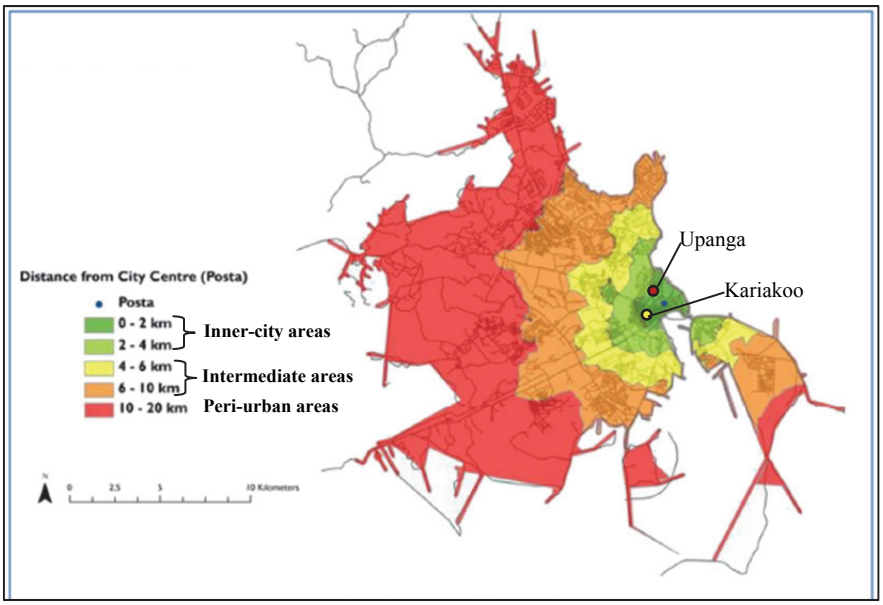
Areas	Status	Location in the city	Housing production/supply dynamics	Major land use and density changes in the urban continuum	Emerging house types	Main house developers	Rank
Kariakoo	Planned	Inner-city	High rate of demolition, moderate extension and alteration	Residential to commercial - residential	Multi-storey buildings up to 14 storeys	Individuals, joint ventures, private and public REDs	High
Magomeni	Semi-planned	Inner-city	Moderate demolition, extension and alteration	Residential to res-commercial	Multi-storey buildings up to 5 storeys	Individuals, few real estate developers	Low
Msasani	Semi-planned	Intermediate	Moderate demolition, infill and alteration	Residential to res-commercial	Multi-storey buildings up to 5 storeys	Individuals, few real estate developers	Moderate
Mbezi Beach	Planned	Intermediate	Moderate demolition, infill and alteration	Mainly residential, commercial-hotels	Multi-storey buildings up to 5 storeys	Individuals, private and REDs	Low
Oysterbay/ Masaki	Planned	Inner-city	Moderate demolition, infill and alteration	Residential to residential-commercial (hotels)	Multi-storey buildings up to 8 storeys	Individuals, foreign real estate companies	Moderate
Upanga	Planned	Inner-city	High rate of demolition, moderate infill and alteration	Residential to residential-commercial	Multi-storey buildings up to 24 storeys	Individuals, joint ventures, private and public REDs	High

Source: Own construct, 2014

As from Table 4.1 above, Kariakoo and Upanga inner-city settlements (Map 4.1) were ranked high as neighbourhoods with high degree of housing production and supply dynamics, conversion of land use and density, massive high-rise buildings and varying house developers compared to the rest of the neighbourhoods. Equally, the selection of the two cases based on the fact that Kariakoo was a residential area for low-income people with simple housing structures built on high density plots while Upanga used to be a middle-income residential area dominated by two to three storey building structures on medium density plots. Also, the grid-iron and garden city planning concepts dominated in Kariakoo and Upanga respectively. Nevertheless, both experience rapid transformations with more or less the same emerging building structures. Hence, the sub-cases were found to be rich in terms of information to fulfil the requirements of the study as well to find whether the emerging housing market still caters for the former inhabitants or they are locked out of the scheme. Other attributes included easy to be accessed in order to save time and cost. Most importantly, the sub-cases were selected in order to ensure external validity in a sense that results of the study could be generalized to a wider context (Creswell, 2009). This was

to avoid the weakness of using a single case whose criticisms include inability to generalize its findings to other areas.

Map 4.1: Location of Kariakoo and Upanga in the urban continuum



Source: Melbye et al., 2015: 183 and modified by the author, 2015

Purposive sampling technique was employed so as to get the right respondents who could fulfil the objectives of the study. In the first stage of data collection, 13 participants who formed Sort A (details are provided in section 4.7.2) were used to validate or falsify the pre-selected cases that would yield the most relevant and plentiful data as well as identifying respondents for in-depth interviews in the second stage. It consisted of heads of departments and sections in the public sector, private urban professionals as well as private and public real estate developers.

Snowball sampling technique was used to identify respondents for in-depth interviews (Creswell, 2009: 178; Denscombe, 2010; Yin, 2011: 88; Bryman, 2012). Thirteen participants with knowledge, expertise and experience on the issue under investigation who were used in the first stage were asked to identify house developers in each sub-case and a list was made. It was thence found out that house developers were heterogeneous in terms of capital and the amount of housing units they offer in the market. The list was further broken down and classified into strata, each stratum containing house developers with homogeneous characteristics. Having finished the classification, participants recommended a random selection of at least two developers from each group for in-depth interviews in the second stage of data collection since all bore more or less unique characteristics. Therefore, I selected 20 house developers in Kariakoo and 13 in Upanga for in-depth interviews. Others were eleven senior and junior public and private urban professionals. These respondents formed Sort B of 44 interviews. Also, snowball sampling technique was used to select 13 respondents to form sort C who could provide data on issues that house developers were not willing to provide particularly on access to land (land price), finance and housing prices and rents. Therefore, this sample included brokers (real estate agents), the resident magistrate of the primary court, businessmen and sub-ward leaders. Such interviews were brief, short and much focused. In totality, 70 respondents, as listed in Appendix 6, were interviewed in order to fulfil the objectives of this work. In conclusion, table 4.2 summarises the criteria used to select the city, municipality and cases used in this study.

Table 4.2: Summary of case study selection criteria

Level	Particulars	Selection criteria
City	Dar es Salaam	▪ The country's Metropolitan, commercial and administrative city, twice as much as the second city (Mwanza) ▪ High urban spatial growth than other cities ▪ Accommodates 10% of the country's population with varying income groups ▪ High rates of building transformation in planned areas ▪ High demand for land and housing
Municipality	Ilala	▪ Has the smallest land mass but with the highest population density ▪ On-going transformation of inner-city neighbourhoods in terms of land use, building types and density
Sub-cases	Kariakoo and Upanga	▪ Former low- and middle-income residential areas with grid-iron and garden-city planning concepts ▪ Inner-city areas undergoing rapid building transformation ▪ Accessibility and cost-effective

Source: Own illustration, 2013

4.6 Units of analysis (enquiry)

The unit of analysis can be defined as a person, group or an object from which the social researcher collects data (Bless and Smith, 1995). Patton (1987: 50-51) adds that units of analysis may comprise families, subcultures, formal organisations, agencies or communities, neighbourhoods, cities, states even nations if the focus is on international programmes. In qualitative evaluations units of analysis may also be particular kinds of events, occurrences or incidences. The key factor in selecting and making decisions about the appropriate unit of analysis is to decide what unit it is that you want to be able to conclude about at the end of the evaluation (ibid: 51).

In this study, the intended purpose was to reveal housing production and supply dynamics and how does the production/supply affect the spatial development of the neighbourhoods. In this regard, at the end of this study I wanted to underscore housing production systems, house developers, and motivations towards the production, prices and rents, customers and at the end derive the relationship between housing production/supply and the resulting urban morphology. Therefore, developers were the main units of analysis. Furthermore, plots on which buildings are constructed as well as building structures were also considered sub-units of analysis. In this work, a critical observation on the extent of building transformation and the subsequent densification was made. Therefore, building structures and plots in which buildings are constructed were important in making comparisons between official building standards and the adopted standards of the new building structures produced as a result of market pressures. The comparison helped to reveal the spatial consequences on individual plots and at street or neighbourhood levels.

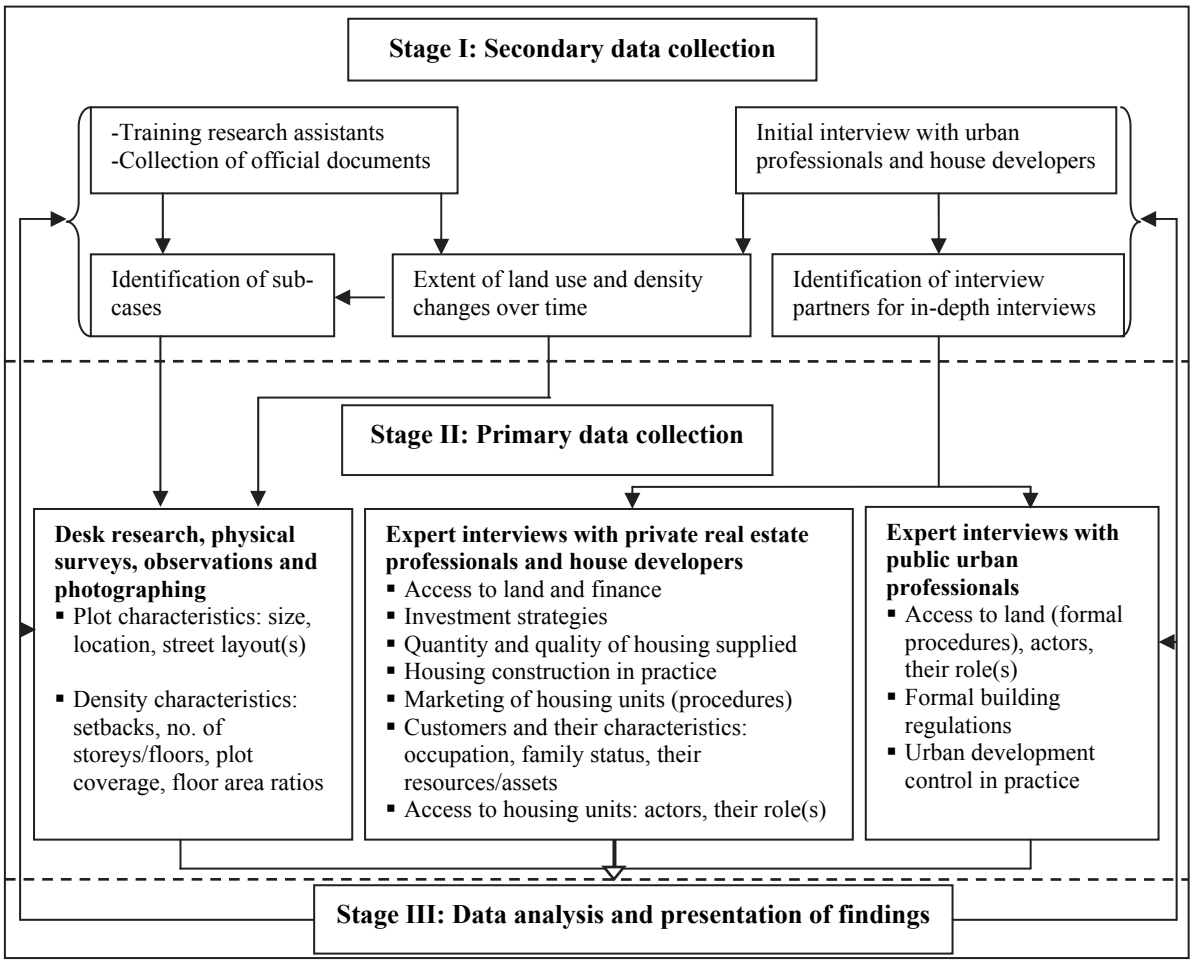
4.7 Data collection process, methods and instruments employed

4.7.1 The process

The data collection process involved two phases. The first phase started in mid-January and ended in May, 2014 and it was carried out in two main stages. The second phase took part from early June to mid-July, 2015 as supplement of the first phase in order to fill in some few identified data gaps that were realized. In the first stage which started in mid-January till February, qualitative methods were employed and the author dealt with activities as illustrated in Figure 4.3. During this stage, three research assistants were trained, secondary data were collected and initial key informant interviews were carried out. Secondary sources from which secondary data were obtained included the Dar es Salaam Central Area Redevelopment Scheme (2000), Oysterbay-Masaki Redevelopment Scheme (2011-2031), Kariakoo Area Redevelopment Scheme (2002-2012) and Upanga Area Redevelopment Plan (2006-2026). Others were the Draft Dar es Salaam Master Plan (2012-2032), Kariakoo and Upanga layout plans, and the urban planning and space standards regulations (1997; 2011). Initial interviews involved public and private urban professionals - Heads of Departments, and few private and public house developers. In this case, interviews were done with Heads of Departments of Lands and Environmental Conservation in the three Municipalities, the Urban Planning Department at Dar es Salaam City Council (DCC), the Research section of the Tanzania Investment Centre (TIC), the Director of Physical Development Control Section at MLHHSD and few private real estate development companies. At this level, the essence of the interviews was to validate the research issue and sub-cases initially selected basing on available literature. Initial interviews were also important for identifying and selecting developers from each sub-case for preliminary interviews and to substantially answer the first research question. A list of registered real estate companies and organizations by BRELA by June 2012 (see Appendix 8) was useful in the identification and selection of respondents involved in real estate activities for the preliminary and detailed interviews. The information obtained was used as a stepping stone towards carrying out the second stage (primary data collection).

In the second stage (March-May), whereby primary data were collected, both qualitative and quantitative methods were used. Qualitative methods included further expert in-depth interviews with urban professionals from Ilala Municipality, private real estate development professionals as well as private and public developers in Upanga and Kariakoo took part. Urban professionals, for instance, provided information on building regulations in respective areas, housing development and urban development control practices. On the other hand, public and private developers stated how they produce and supply housing, the motives for engaging in real estate activities, housing finance options, access to land, how housing units are accessed, adherence to formal building regulations, etc. Although interviews with urban planners provided some quantitative data on space standards such as plot setbacks, building heights, plot coverage and floor area ratios, the majority were collected from official documents particularly area specific development plans and national space standards; and through physical surveys. Physical surveys, being facilitated by observations, counting, photographing and sketching; aided the collection of data on the actual space use at plot level of the emerging building structures. Later on the adopted space standards by developers were compared with the official standards in order to verify whether the market forces prompted developers to over-use plot space. The application of these multifaceted data collection methods on the same aspects was important in a sense to ensure internal validity.

Figure 4.3: Stages in the data collection process



Source: Author's construct, 2013

4.7.2 Methods and instruments used in the process

In the previous section I highlighted the main methods employed in data collection while describing the data collection process. This section discusses more the instruments used although the two (methods and instruments) are inseparable because the choice of an instrument depends much on the method to be used and the type of data to be collected. Using a combined/mixed methods research design - qualitative and quantitative sequential exploratory design (cf. Figure 4.2), qualitative and quantitative data, as presented in Figure 4.3, were deployed and gathered. However, due to time and financial resources constraints, qualitative data were collected without systematic analysis until collection of quantitative data was done. Instead, during qualitative data collection, major themes which required quantitative data to substantiate were noted and later on collected.

Qualitative data collection

Qualitative data were collected through interviews, observations, documents and audio-visual materials including photographs. Interviews involved private and public house developers, public and private urban professionals, and real estate agents to answer the first research question.

Interview guides and recorders for interviews

Using interview guides/schedule with specific topics, semi-structured guides were used. In this case, face-to-face recorded verbal interviews, lasting about 45-55 minutes, were used to collect qualitative data. Notes, which involved picking the key issues from respondents, complemented the recorded verbal interviews. This approach offered a two-way discussion with respondents while maintaining focus on the major issues. It also allowed flexibility towards specific responses. Although Bethlehem (2009: 153-154) argues that face-to-face interviewing is the most expensive mode than telephone and mail interviews, its use was preferred because of its ability to generate good quality data with a higher response rate from respondents over the other options. In this work, telephone and mail interviews were only used as a supplement when the researcher required clarification on certain aspects whose themes were not well understood or well captured during transcription and analysis. As Kiswahili language was often used, except with few house developers with foreign origins, recorders captured and stored replies (Creswell, 2009: 183). At the end, the daily fieldwork progress was discussed and major findings documented. Upon return to Germany, recorded verbal interviews were transcribed and later on translated into English.

A total of 70 interviews, divided into three sorts (A-C) as Appendices 1-3 show, were conducted under pre-prepared interview guides. Out of these, 13 were conducted during the preliminary data collection stage while 57 interviews were carried out during the second stage (in-depth interviews). The interview guides were prepared with respect to the type of respondents and type of data which the researcher needed. Sort A (13 preliminary interviews) largely consisted of public urban professionals. Other respondents were private urban professionals and private and public real estate developers (Appendix 1).

In the second stage, a total of 57 interviews divided into sort B and C were conducted. Sort B consisted of 44 in-depth interviews and was mainly formed by senior and junior urban professionals, and public and private house developers (Appendix 2). Four interviews with public urban professionals and three interviews with private urban professionals were done. In this case, private urban professionals refer to private real estate and architectural firms mostly dealing with consultancy services on matters pertaining to real estates and building/house designs. 20 and 13 interviews conducted in Kariakoo and Upanga respectively involved private and public house developers who owned/constructed buildings in redevelopment areas. Three of 33 interviews involved developers who built or owned buildings in both Kariakoo and Upanga areas. Also, four out of 33 interviews were conducted with the public or semi-public real estate developers namely NHC, PSPF, NSSF and NIC.

During interviews, particularly with private real estate developers, it was discovered that there was no transparency on some issues which concerned the study. These include, for example, issues related to access to land (land price) and finance. For instance, when developers were asked about the price paid for land, they would generally say a lot of money, with none stating the actual amount paid. Also, upon being asked about the source of finance, some simply said from banks, declining to mention the amount they borrowed and from which bank. In order to get data on such issues it was necessary to identify other sources. Hence, 13 short and focused interviews (sort C) were organised and executed (Appendix 3). Three interviews with local banks (NBC, Access and CRDB) helped the researcher get the amount of cash banks can offer as mortgage finance including conditions for borrowing and paying back. On matters pertaining to access to land, price and rents for commercial spaces; interviews with four brokers (real estate agents), two businessmen in Kariakoo, one with a sub-ward leader and one with the resident

magistrate of Kariakoo primary court were conducted. In addition, two interviews with pedestrians revealed the nature, process and use of public space use in the contested streets.

Observation sheets and cameras for observations and photographing

In this research non-participant observations and photographing were employed as data collection methods useful in complementing information collected through interviews. This was more useful during investigation on plot space use in the course of housing construction. The use of non-participant observation, sometimes referred to as direct observation, was employed because the research agenda i.e. housing production and supply, the community and the context being studied were well known. Therefore, it was not necessary for the researcher to live with the community or get involved in the activities of the community. Hence, I remained a passive observer, only watching and listening to its activities but drawing conclusions from it (Kumar, 2005: 120). On non-participant observations, Denscombe (2010: 196) argues that they do not rely on what people say they do, or what they say they think. Instead, they draw on direct evidence of the eye to witness events at first hand. Secondly, they help the researcher to see things from a different perspective than that of the participants by identifying sensitive issues which participants sometimes may not freely wish to talk about (ibid).

Resulting from above, the aim of recording the behaviour of the participants, as more detailed as possible so as to develop a narrative account of the behaviour, was met using a pre-prepared observation sheet (see Appendix 5b). Digital cameras, for taking the events which were observed and recorded on observation sheets, made it possible to figure out and get a painted picture of what happens on space as an outcome of market pressures (high demand for housing space and desire to maximize returns through the use of plot space). It was thence helpful to triangulate and complement the data collected through interviews since they best proved the issues or problems being investigated. For instance, observation sheets and photographs were useful instruments in capturing qualitative spatial data on technology used by contractors, the types and uses of building structures being constructed, services provided by developers and those provided by utility agencies.

Quantitative data collection

Quantitative spatial data, on the use of plot for building construction and the general land use, were drawn from archives (government reports/documents), raster images for Kariakoo and Upanga of 2007 and 2012, and physical surveys. In some cases, multiple sources of information mainly by employing qualitative methods such as interviews, observations and counting were used as they allowed the researcher to document spatial data such as plot setbacks and building heights and later on help to calculate densities in the two settlements. Results obtained through quantitative data collection and analyses were compared to those collected using qualitative methods on similar variables as a way to triangulate information and to enhance internal validity.

Notes-taking for documentary evidence

As noted in the previous sections, notes-taking covered information and data from government documents, text books, local newspapers, local journals, internet, urban planning online forums, maps, layout plans, house floor plans, letters and existing literature. The sources provided the technical specifications and standards, urban planning, development and management practices as well as findings on similar aspects that this study aspired to cover. Also, official documents from

CRB and AQRB provided data on classes of contractors and completed and on-going building projects respectively. Information on planning standards were obtained from the National Space Standards (1997; 2011) document of MLHHSD while Area Redevelopment Plans for Kariakoo (2002) and Upanga (2006) provided land uses in raster and tabular formats, space and development conditions. Elements of major interest on space standards included plot sizes, recommended plot coverage, heights of buildings and floor areas ratios. These were useful in determining how effective the pressure exerted by the housing market on the physical space is by comparing with those adopted by developers. Raster images of 2007 and 2012 provided density changes of the two settlements in raster formats over time and space.

Observation sheets and sketches for physical surveys

Physical surveys were useful to capture practices on the use of plot space in the course of building construction. That is to say, physical surveys were conducted in order to determine the adopted quantitative space standards by developers (see Appendix 5a). Owing to this, quantitative spatial data on the adopted plot setbacks, building heights, coverage and width of streets were captured by estimating and counting; and later results were recorded on paper. In doing so, observation points were selected by taking into account the proposals made in the specific area redevelopment plans. Depending on proposed zones, their corresponding development conditions, nature and extent of housing transformation in the two neighbourhoods, 16 and 17 observations were made in Upanga and Kariakoo respectively (see Figures 4.4 and 4.5).

Figure 4.4: Observation points in Kariakoo

Figure 4.5: Observation points in Upanga

Source: Fieldwork data, 2014

Moreover, the layout plans for the two settlements were used to trace and map individual buildings on their respective plots and blocks. In this regard, observation points included completed and on-going projects in each sub-case and an investigation on spatial elements mentioned above was done, photos were taken and where necessary sketches were drawn. Spatial data on the use of plot space collected through this method and instruments were computed using relevant formulae in order to derive real spatial densities in the two study areas (Appendix 7). The results were triangulated with those obtained through qualitative methods and instruments

particularly interviews with urban planners. Finally, these results were compared with the official space standards and regulations to confirm spatial densities.

4.8 Validity and reliability of data collection instruments

Validity, as discussed by Bryman (2012), is concerned with the degree at which the research instrument measures or records what it is intended to cover. Yin (2011: 78) argues that a valid study is one that has properly collected and interpreted its data so that the conclusions accurately reflect and represent the real world (or laboratory) that was studied. On the other hand, Yin (1994: 33) holds that reliability is concerned with research instruments to yield similar results if the same tool and protocols employed in conducting one research are used further under similar conditions. In other words, reliability is the stability of the tool to measure a concept. In this study, validity and reliability of the research instruments were ensured in five ways. The first was intensive literature on different research instruments and the type of data (qualitative or quantitative) they can be used to collect. In this study, interviews were dominant; and interview guides, recorders and notes were used to capture the conversations. Others such observation sheets and sketching were also useful during physical surveys.

Secondly, two important consultative meetings with the supervisor on the study methodology and how it is linked to the research questions consolidated the validity and reliability of the tools. Also, various PhD colloquia particularly seminars on qualitative and quantitative data collection methods and tools yielded another substantial assurance. On top of these, informal discussions with fellow students on the research variables and tools I intended to use in data collection were quite useful. In this case, I could freely test my views against others' opinions as well as develop deeper insights on the instruments. Lastly, piloting and pre-testing of questions, which was done during the first stage of data collection before the actual interviews in the field, helped to check and ensure the appropriateness of the issues raised in the interview questions as well as the relevance of the research instruments. Where the instruments, particularly interview guides, failed to collect the intended data types, slight changes were made.

4.9 Consideration of ethical issues in data collection

Before conducting interviews, I gave a short introduction of my research topic and remarks to ensure respondents why I needed the information or data I inquired from them and especially how it will be used. The intension was also to build rapport and other reservations the respondents might have by ensuring them that the data and information were to be used for academic purposes only. In order to guarantee that, I mentioned my full name, work station and position, where I was registered as a PhD student and how long could the interview take. Other introductory remarks are as presented in Box 4.1.

Box 4.1: Rapport with respondents (part of)

[…]. Currently, I am collecting data and I would kindly like to hear some experiences from you as far as housing market and urban development is concerned. I have few questions that I will request you to answer. It is voluntary to participate and I will *not write your name in the report or anywhere if you won't like it*. You can stop the interview anytime during the discussion as you would wish to do so.

Resulting from above, some participants agreed to mention their names and had no objection if I included them in the report, but others still declined. Interestingly, after the interview some participants particularly house developers who were initially reluctant to cooperate, eventually insisted that I visit their buildings and take photos if I wanted (cf. sect. 7.7.3). Others provided business cards and leaflets, and agreed to be contacted back in case I needed further clarifications. This inter alia suggests that the data and information given were correct and relevant to issues posed to the respondents. Regarding respondents who insisted not to mention nor include their names in this thesis, I decided not to refer to specific names of participants throughout this work for the sake of maintaining consistency. Instead, every respondent was given a specific pseudo alphabet which stood for his/her name in order to keep personal issues and interests confidential.

4.10 Data management, analysis and presentation of findings

4.10.1 Qualitative interviews

Data checking and cleaning

Data collected from interviews were in form of facts, experiences, opinions/suggestions and advices. Facts included formal written documents; experiences provided the real situation while opinions, suggestions and advices aimed at making improvements where weaknesses were observed. All interviews administered by assistants were checked and cleaned by the principal researcher before being accepted and stored for further analysis. For example, in this work, data cleaning involved removal of unwanted information or personal information e.g. names of respondents or their telephone numbers through which it was easy to identify or trace them. Where anomalies were identified, further appointments were planned in order to fill in the identified gaps or seek clarification. Typical incidences included, for instance, the case where research assistants conducted interviews with NHC which did not address the previous rental charges of different sized housing units. As such, new appointments were set and the principal researcher resumed the interviews.

Transcribing verbal interviews

Analysis of interviews was descriptive in nature through transcribing. Transcription of verbal interviews was done using a simple transcription method in order to avoid the complexities of a detailed transcription particularly time limitations (see also Dresing and Pehl, 2010: 76; Dresing et al., 2012). On the one hand, the appropriate transcription ratio stood at 1: 10-11 (i.e. one hour interview requiring 10-11 hours) for 44 in-depth interviews which lasted 45-55 minutes each. This is because apart from transcribing, I was also required to translate the interviews in English and proof-read the transcribed interviews. That being the case, it therefore means that it took almost two days to transcribe and translate one verbal in-depth interview of 45-55 minutes. This is in accordance to Dresing et al. (2012: 40) that a transcriber needs to spend four to six hours a day for effective transcription. Other authors, e.g. Ehlich and Reede (1994: 4); Lange (2008: 48), report that one minute data took between 30 and 60 minutes to transcribe a detailed interview. On the other hand, a ratio of 1:4 was applicable for the rest 26 preliminary and supplementary interviews which consumed approximately 20 minutes each.

During transcription, transcribed interviews were grouped into relevant themes emanating from research questions to form preliminary research findings. When all planned interview transcriptions were concluded, a final compilation was carried out to establish a detailed set of findings from qualitative data. The results were prepared using MS-Word in form of texts, tables and figures.

4.10.2 Quantitative data

Likewise, data cleaning was important before the actual analysis. For example, when the researcher inquired of registered building projects for the two sub-cases from AQRB, countrywide data were provided. Thus, it was necessary to downscale these data to a city/town and specific sub-cases levels as a way of cleaning them. Moreover, names of streets were checked and corrected. The analysis of such data was done using MS-Excel from which the types and uses of buildings, project values and later on scales of house developers were generated. Analysis of spatial data collected from various official documents was done by comparing with those collected through observations, photograph administration and registered building projects. The essence was to see if actual housing development blends with what is stipulated in the official documents. At the end, the comparison helped to draw conclusions on the consequences that housing market brings at plot, street and neighbourhood levels in terms of space use. In the same way, spatial analysis at plot and neighbourhood levels, looking at plot setbacks, plot coverage, number of storeys and floor area ratios; helped to calculate and determine densities as well as traffic movements in the areas. This was enhanced by data on the actual housing development practices at the expense of recommended standards. Results from the above analysis were presented in form of text, tables, maps, sketches and photographs.

4.11 Methodological constraints

When I was carrying out this study a number of constraints, also as shown in Table 4.3, were encountered. The constraints ranged from administrative challenges, associated with public property security and procedures of getting a research permit, to personal challenges mainly associated with reluctance to provide data. Foremost, on the first challenge, my understanding was that taking photos especially of properties located and information displayed on public space does not necessarily require a research permit. This was not the case as I found myself being apprehended when I was taking a photo of a billboard with an advert on housing for sale and renting in Kariakoo and Upanga areas which was situated along UN Road near Fire Station, where a police post is also located. All over sudden, a policeman came and asked for a research permit that I had not secured. Following this, I agreed to have not acquired a research permit and introduced myself to him in order to clear the doubts that the information I was collecting was for malice reasons. My release was conditioned by a plea to get a research permit from the responsible authorities.

Secondly, the procedures of getting the research permit were long and time consuming. I had to start the process at the local government authority (regional, district, municipal) all the way to the research area. Besides these permit concerns, some respondents especially private developers were reluctant to provide information on certain issues such as options for housing finance and land prices. As such, I lacked data from the mouths of the targeted respondents. Others asked me to stop the interviews for some minutes in order to pick incoming calls of people who were asking for housing units for sale or rent. This prolonged interview time and it was a reason for the failure to effect other planned appointments as well. Others were not ready to mention their names or allow the researcher to enter buildings and take photos.

The first two challenges were resolved by following the stipulated time consuming procedures for the acquisition of a research permit from responsible authorities. As a result, the planned fieldwork was to be prolonged for two weeks more than the time planned. Also, some important and rarely occurring contemporary events that I could capture as I came across them,

such as those related to land transactions during plot visits, were not captured due to lack of a research permit. This made it difficult to get identical events, although similar ones served the purpose. As a result, some data collected through verbal interviews lacked visual evidence. The use of other actors such as agents/brokers, lawyers, businessmen and urban professionals involved in similar processes helped to resolve the challenge of reluctance to provide some data or information mainly by private developers.

Table 4.3: Summary of methodological challenges encountered

Research challenge	Resolution/handling	Effects to research
Apprehension by security during photo taking without research permit	Admission on lack of research permit Acceptance of research permit acquisition	Missing visual information/data on contemporary events as evidences for verbal information
Time-consuming acquisition of a research permit	Acquisition of a research permit over long procedures	Prolonged fieldwork time, late analysis, reporting and finalization of the research project
Reluctance of some private developers on data provision	Establishment of a transparent relationship and ensure confidentiality of personal information before carrying out interviews Use of other respondents	Missing some data/information from original sources Lack of visual data to support verbal information
Time wasting during incoming calls to respondents	Pausing interviews and resuming after conversations	Prolonged interview time and failure to realize other planned appointments Prolonged fieldwork time

Source: Own illustration, 2014

4.12 Concluding summary

The discussion in this chapter has presented the research design and methodology that guided this research. Case study research strategy and mixed methods research approach led the sampling, data collection methods and instruments, analysis and presentation of findings as far as this work, basing on research questions and variables, is concerned. The following chapters present the empirical findings for each case study area as per detailed research questions outlined in section 2.8. The findings are related to housing production/supply and the spatial consequences as outcomes of the supply and demand forces.

Section three:
Empirical findings, analysis and discussion

5 HOUSING MARKET AND ACTORS IN KARIAKOO

This chapter presents empirical findings, mainly from qualitative and quantitative sources, on the housing market mechanism and environment in Kariakoo. It covers major thematic issues such as housing production and supply systems, the supply driving factors, type and scale of developers, amount and quality of housing units produced/supplied, land and housing prices and rents, and targeted customers. The locational, establishment and connectivity contexts of the within which this study was conducted are presented prior the presentation and discussion of the findings.

5.1 Establishment, location and connectivity

Kariakoo settlement is believed to have evolved during the 20th century (in the 1920s). Initially, the area composed a coconut plantation established in 1862 during the time of Sultan Seyyid Majid bin Said bin Sultan of Zanzibar (Saleh, 2006: 369). Later on, it was occupied and used by indigenous Africans including those who worked in the Sultan's farm. The residents were also engaged in fishing and small-scale farming activities (Kironde, 1994). Neighbouring villages included Kisingo, Mzizima, Upanga, Kisutu and Magogoni (Kironde, 1994: 134-135; Isaac, 2007: 33). Dwellers in the neighbouring villages comprised Africans who were mainly engaged in farming, fishing and small-scale trade. Others were employed in the coconut plantations owned by the Sultan.

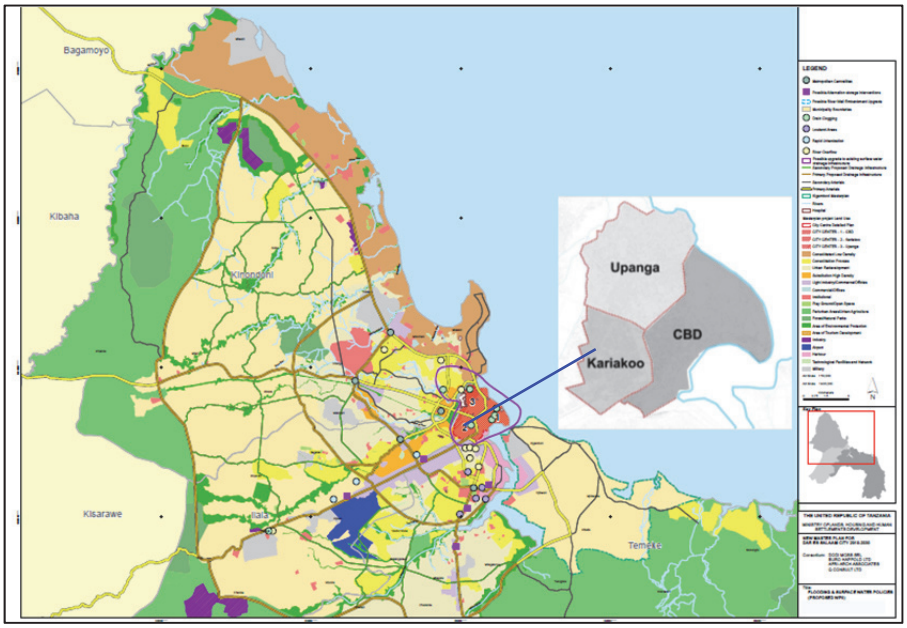
Later on, during the early German colonial time in 1891, a German (Schöller) purchased about 213 hectares of the coconut plantation from the Sultan, allowed Africans to settle on that land as renters under conditions related to rent payment, housing tenure and housing types to be built. Concerning housing types, renters were only allowed to construct temporary structures, only for residential purposes. Walling materials were mud and pole, thatch or coconut palms (*makuti*) as roofing materials. Gradually, the settlement attracted more people including Indians under the same tenure conditions. Under the guidance of the German zoning and building regulations (die Bauordnung) of 1891, Kariakoo was designated Zone III together with Gerezani where native buildings with flexible standards were allowed (Lupala, 2002: 92). Later in 1914, the German state acquired Schöller's farm and created a grid-iron (chess-board) plan as an African neighbourhood. Adjacent area was an open green buffer "cordon sanitaire" (now Mnazi Mmoja grounds) that would separate the Kariakoo African settlement from the rest of the town (Lupala, 2002: 93; Brennan and Burton, 2007: 29).

The name Kariakoo came into being during the British time. It derives from the British words "carrier corps" who based in this area. As job opportunities increased in Dar es Salaam (also contributed to by the construction of the Dar es Salaam-Kigoma railway by Germans in 1905), in-migration and densification of Kariakoo increased. Increase in population and lack of a proper development plan continued resulting into poor spatial development. The proposals of the first Dar es Salaam of 1949 for Kariakoo which aimed at transforming single story residential buildings to low-scale three to four storey buildings for commercial, institutional and service trade uses were not realized. The preparation of the second (1968) and third (1979) master plans led to the preparation of the 1969 and 2002 redevelopment plans for Kariakoo which outlined key redevelopment guidelines. Following this, some indicators for regulated development were observed.

Kariakoo area is one of the inner-city areas (see Figure 5.1). At a regional scale, Kariakoo is located in Ilala Municipality-one of the three municipalities of Dar es Salaam region.

The other two are Kinondoni and Temeke (cf. Map 3.1). Ilala Municipality borders itself with the Indian Ocean to the East, the Coastal Region to the West, Kinondoni Municipality to the North while Temeke Municipality borders it to the South. Administratively, the municipality is divided into three divisions, 22 wards (Kariakoo inclusive), 65 sub-wards, nine villages, and 37 hamlets. In 2002, Kariakoo had a population of 9,405 (NBS, 2002). The population had increased to 13,780 and an average household number of 4.3 in 2012 (NBS, 2013: 76). Kariakoo covers about 196 hectares of land and it is bordered by Morogoro road to the North, Nyerere road to the South while Bibi Titi Street borders the settlement to the East. To the West, Shaurimoyo Street and Msimazi valley are the borders (Figure 5.1).

Figure 5.1: Location and connectivity of Kariakoo settlement



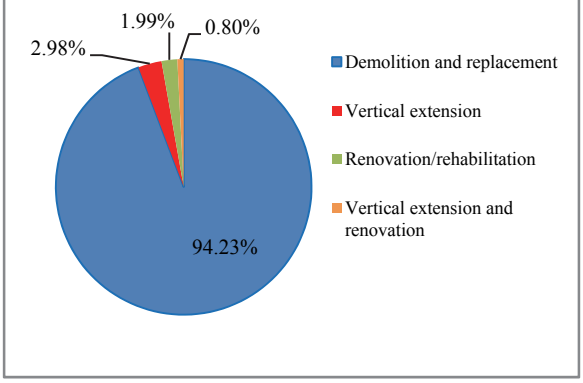
Source: URT, 2013

Due to its central location, the settlement is well connected to and accessible from many parts of the city and the country in general. At one end, Nyerere arterial road connects Kariakoo to other settlements in the city such as Buguruni, Ukonga, Gongo la Mboto and other urban centres in neighbouring regions and districts such as Kisarawe in Coast region. Bibi Titi road connects the area with Upanga settlement as well as centres located along Ally Hassan Mwinyi road (Morocco, Kijitonyama, Mikocheni, Mwenge, Mbezi beach, Kawe and Tegeta) as well as Bagamoyo town to the north in Coast region. On the other hand, Morogoro road connects the settlement to the city centre, Magomeni, Manzase, Ubungo, Kimara, Mbezi Luis and Kibamba sub-centres as well as Kibaha Township in Coast region. Kilwa road acts as a connecting link between the settlement and Mtongani and Mbagala sub-centres down to the Southern regions. Beyond these sub-centres, Kariakoo is also connected with Mkuranga Township in Coast region. Uhuru road moves traffic from sub-centres such as Ilala and Buguruni to and from Kariakoo.

5.2 Dynamics of housing production and supply

Empirical results have shown that housing units in Kariakoo are produced and supplied through various ways. The major ones include demolition of single storey old-style or 2-3 storey houses and reconstructing multi-storey buildings; vertical extension of uncompleted multi-storey buildings and renovation. Others are horizontal transformation i.e. extension/alteration and addition of small rooms or building structures besides the main buildings. Results from registered building projects over the period of eight years (2006-2014) showed that 94.23% of all buildings in Kariakoo were produced and supplied through demolition and replacement. The proportions of the rest are as presented in Figure 5.2.

Figure 5.2: Housing production sytems in Kariakoo



Source: Field data, 2014

5.2.1 Demolition and redevelopment

This is the most dominant house supply activity in Kariakoo. Results showed that 94% of houses supplied are produced through demolition and redevelopment. In this case, old dilapidated Swahili houses are pulled down and replaced with modern high-rise buildings. Calculations and interview results with urban professionals showed that the Swahili housing stock has dropped to around 20% to 25% of the total housing stock at a settlement level and almost 5% at a block level particularly in the prime streets. Figure 6.3 presents the extent of demolition and replacement reached in the prime streets today. From the figure, a single detached building amidst high-rise buildings signifies that the entire area has almost transformed in terms of land use and density. Moshi (2009: 61) finds that in 1975 the stock of Swahili houses in Kariakoo was 95% and it had declined to 75% of the total building stock in 2003. At a block level, the number had decreased to 40% in 2008.

Figure 5.3: Demolition and redevelopment along Livingstone Street

Source: Fieldwork, 2014

Buildings undergoing demolition were built on small high density plots (measuring 250 or 300m^2). As noted earlier, the old Swahili houses as well as the former two to three storeys (most of them owned by NHC) built before and just after independence are the targets for the on-going transformation. Currently, more Swahili single storey residential houses have been demolished as compared to 2-3 storey buildings held by NHC. Those owned by NHC were mainly tenement buildings for single or multiple-family uses on the upper floors; and maintained commercial activities (often) shops in the ground floor. The mainstream architecture of these buildings exhibit Asian architecture and culture; as most of them belonged to Asians before they were nationalized in 1971. The Swahili houses are characterised by one main building facing the road/street with between six and eight rooms separated by a corridor. In the frontage, there often

is a veranda (*baraza*) which is used for resting, getting fresh air and for formal/informal conversations by men. Men could also sit in the veranda and speak with neighbours living in adjacent buildings. One of the rooms, just after the front veranda, is normally used as a sitting room. In the courtyard/backyard (*ua*); a kitchen, toilet and bathroom are provided while the remaining space was used for outdoor activities such as washing and drying clothes. It is also an area for formal and informal conversations and cooking by women.

Concerning buildings reconstructed after demolition of the former building structures, field results showed that 95% of the emerging multi-storey buildings had a minimum of five and a maximum of 14 storeys and accommodate mixed-use i.e. commercial-residential uses. The rest 5% which comprise one to four storeys, also accommodate a mixture of residential, institutional (offices) and commercial (hotels and other business activities) uses. With the exception of very few used for hotel and office purposes; the ground and occasionally first floor spaces are used as shops while upper floors normally comprise residential apartments.

5.2.2 Vertical extension and renovation

Vertical extension refers to the addition of a floor(s) on top of an existing building(s). Often it is done because of lack of open land needed to extend the existing building horizontally or resource deficit to complete the building. Renaud (1984: 15); Tipple and Korboe (1998: 245-257); Mostrales and Tusalem (2002: 4) on housing construction in a progressive or incremental mode by the poor observe that as resources become available or when employment of the household heads is more stable, they extend their houses horizontally or improve them. Smets (1999: 182) concurs but he put forward a counter-argument about development of houses by middle- and high-income groups. He argues that they are inclined to construct complete houses in one time. In response to Smets' arguments, Makoba (2008: 28) discussing house construction activities in the Tanzanian context emphasizes that the incremental model does not only apply to the urban poor but also to middle- and upper-classes due to limited housing finance opportunities. Makoba's argument is partly true and I argue that there is a very thin layer of high-income households who start house construction, complete and occupy without break within the process. The majority of middle-income group move in when they have only roofed or completed few rooms that they can use and the rest is done gradually (step-by-step) over several years. Amri (2014: 6) argues that the actual completion and occupation time of most housing developments ranges from four to seven years due to the fact that the majority of developers largely rely on personal savings.

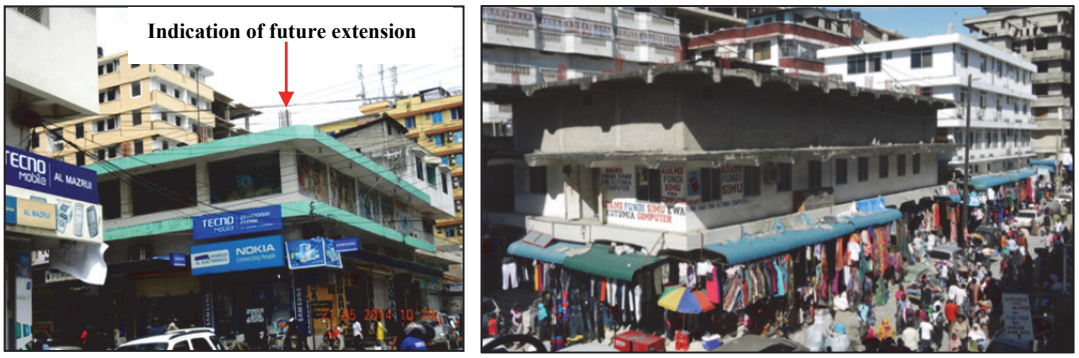
The incremental approach was observed in Kariakoo whereby 6% of all housing units are produced through this system. Developers in this area do not fall in the "urban poor" group, but because of limited resources particularly lack of adequate financial options to undertake such huge projects. In this case, construction of buildings which started some years ago, say five to ten years, could not be completed because of financial constraints. In this regard, only part of the structure is built i.e. one or two floors. Often, ground floors, mostly used as commercial shops (*maduka*) are completed and used as a source of income through renting. Later, with the use of income generated or income improvement, owners may continue with finishing or adding one or two upper floors. Figure 5.4 shows two old-appearing buildings in Block 46, Plot no.14 along Sikukuu Street and Block 5, Plot no. 6 along Kirk Street respectively. All were built over ten years ago and were not completed because of financial constraints. During fieldwork, owners were able to resume construction activities as their income improved. In these plots, vertical extension was in progress and artisans were working at the site as shown in the figure.

Figure 5.4: Vertical extension along Sikukuu and Kirk Streets

Source: Fieldwork, 2014

In other cases, only the ground floors were completed and occupied while the first and second floors were semi-completed. Figure 5.5 presents an example of the extension in Block 59, Plot no. 20 along Mafia/Livingstone Street. As seen from the figure, vertical reinforcement bars have been left to protrude beyond the upper floors signifying that the buildings will undergo further vertical extension in the future.

Figure 5.5: Reserved buildings for vertical extension at Mafia/Livingstone and Mchikichini Str.



Source: Fieldwork, 2014

When individual developers, who extended their buildings vertically, were asked the reasons for adopting such a housing production model, responses indicated the desire to improve earning to support their families as well as help them add more floors as the following quotation highlights:

> *"With rent collected from three shops on the ground floor I can sustain my family. I can also accumulate the balance and after one or two years add one more floor."*[19]

Besides revenues from completed and leased out spaces, mortgage finance from local banks also facilitated few developers to extend their buildings vertically as the same respondent added:

> *"I got a housing loan from NBC which partly facilitated the construction of the first floor".*

Other closely related house supply means in Kariakoo included conversion of residential buildings into institutional (office) use by renovating.

[19] Interview with individual/corporate private developers, Kariakoo area, April 2014

5.2.3 Horizontal extension and alteration

Horizontal extension and alteration in Kariakoo began in the 1990s when housing demand boom was apparent in the area. Higher rates of extension and alteration were spiced by the increase of the private sector role in the economy following the adoption of neo-liberal economic policies. Today, results from observations show that there are only few single storey houses that are still owned by original owners that have been either extended horizontally or altered internally. Most extension is done by creating new spaces for shops, informal garages, food vending outlets on the facades or extra residential rental rooms in the backyard. As a result, net floor areas of buildings as well as housing density have increased remarkably i.e. from six to eight rooms (of Swahili type) per 250m^2 to between ten and twelve rooms per 250m^2 (see Figure 5.6). Several socio-economic reasons were mentioned as the main motives for carrying out such conversions. Social reasons include house owners wish to become landlords/ladies. The main economic reason is the desire to earn income (reap benefits) from the plot so as to improve household's income. In other words, most of horizontal extensions are livelihood strategies to overcome household economic hardships of house owners who are still living in their houses.

Alteration also involved introduction of new uses or changing uses of some rooms. As such, main entrances of buildings are closed and new openings (doors) on the side walls are opened in order to create new units for renting. Often, front windows are changed into doors and used as shops for income-generating activities. In some cases, front spaces, initially used as verandas formed by short walls, hollow iron pipes or wooden poles, are converted into commercial spaces by introducing sand cement partitioning walls (cf. Figure 5.6). Moshi (2009: 68) observes similar trends along Livingstone and Mchikichini Streets. He notes that in some cases, a whole house was converted and taken up by commercial activities: front rooms converted into shops and rooms at the back used for storage purposes. This study also observed that the choice of this housing production option over vertical extension is based on inability to mobilize resources for vertical development and/or reluctance to sell houses because of land/house price speculations.

Figure 5.6: Extended/altered front verandas into business spaces

Source: Moshi, 2009: 69 and Author, 2014

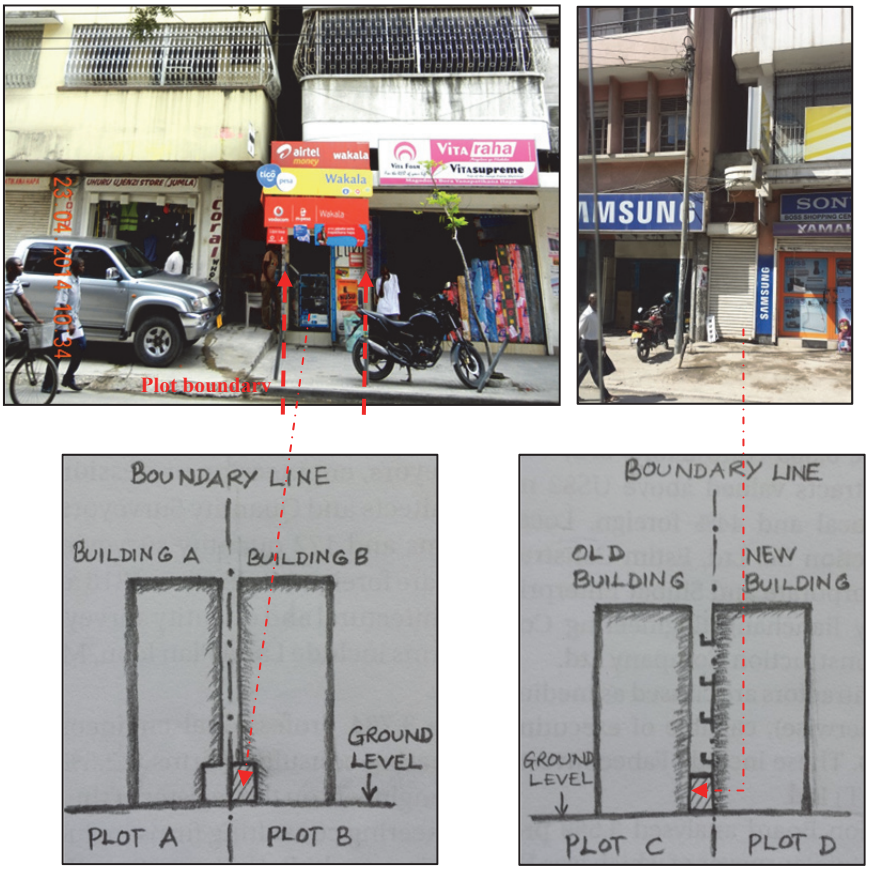
Unlike vertical extensions which are mostly carried out by buyers of original houses as discussed in the previous section, most extensions or alterations are mainly carried out by individual home-owners. However, the desire to extend or alter buildings is primarily a livelihood strategy driven by high demands for housing spaces. These results comply with the housing adjustment theory particularly incremental construction. In this theory it is argued that few owner-occupier

households extend or alter houses because they are likely to remain unsatisfied with their housing indefinitely or because of mutable demands caused by changes in household's socio-economic conditions (Seek, 1983: 456-457; Makoba, 2008: 27). Others effect changes due to housing prices increase and external influences such as public decisions linked to land use or transportation (ibid).

5.2.4 Extension of small structures

This is the form of housing extension which often takes place besides reconstructed high-rise buildings but at a much smaller scale. Space supplied through this often involves blocking side setbacks between buildings and constructing small structures within that space on the facades using soft woods or iron sheets. Figure 5.7 shows two options or manifestations of encroachment. While Figure 5.7a shows that one developer has encroached half of the space left over between buildings to establish a vending stall, Figure 5.7b shows a new developer having constructed the building up to the end of the boundary line. At the same time, the adjacent (old) developer has used the space left towards the boundary to establish a store.

Figure 5.7: Extension of small structures along Uhuru Street



5.7a Source: Author, 2014 5.7b

From figure 5.7b it can be seen that the encroachment is worse because the new developer has exceeded the plot line by extending the balconies adjacent to next building as the photo and sketch show. Because of their poor quality and limited space, created spaces are mainly used as vending spaces or stalls by low- and medium-income businessmen. These comprise technicians, water vendors, mobile phone agents and vendors who sell recharge vouchers, pre-paid electricity

vouchers commonly known as LUKU[20] and facilitate cash electronic transfer using M-Pesa, Tigo-Pesa and Airtel Money chains (cf. Figure 5.7). Other spaces are used as stores, spare parts shops and hair salons. The group of businessmen using such spaces cannot afford renting bigger spaces because of high rents charged. In such cases there is no space-sharing because the spaces are generally too small (less than $7m^2$).

In summary, these findings on housing space (re)production have a bearing on the morphology and function of the buildings as well as the street layout (spatial quality). While morphological conversions are associated with changes of building form in the built areas, manifested in changes from say single storey to multi-storey; functional conversions are related to the change of use of buildings, for instance, from residential to commercial. On the other hand, spatial conversions refer to change of the characters of the streetscape in terms of facade reconfiguration, on-going activities and other changes which tend to deform voids and solids constituting the street.

5.3 Factors driving the production and supply of housing

The main factors which attract housing production and supply in Kariakoo can be grouped in three major categories. The first category relates to market forces while the second and third are associated with locational aspects and most importantly changes in government policies.

5.3.1 Market forces

High demand for commercial spaces

In this category, the primary driver was found to be high demand for commercial housing than for residential uses. All 20 developers interviewed mentioned this as the key catalyst for housing production and supply in Kariakoo. A medium-scale house developer and an economist, attracted to construct a building in Kariakoo, said:

> *"Kariakoo is a business hub in Dar es Salaam next to CBD. This also means that there is a higher demand for commercial housing spaces than other uses. For a house or real estate developer, this must be the primary driving factor for producing or supplying housing units in the market. This is because the supply is always dependent on the potential ability of the product to generate more profit over other products, and the type and quantity of a certain product demanded."*[21]

Developers provided further indicators for the high demand for commercial spaces in the area whereby business and trade play major roles. One of the main indicators is a pile-up of applications for commercial spaces just when building construction sign boards are mounted on the site. The other indicator is the wish to rent, occupy and use commercial spaces while buildings are still under construction as clearly illustrated by Figure 5.8. Responses from developers showed also that residential apartments are fully occupied within four and six months after buildings are completed. Moreover, local banks are providing more mortgage finance for commercial and commercial-residential than residential buildings because the former are more likely to pay back better.[22]

[20] An arrangement of paying electricity bills through ATM and mobile money services.
[21] Interview with a medium-scale private house developer, Kariakoo area, April 2014
[22] Interview with officials from NBC, CRDB and Access banks, Kariakoo area, May 5, 2014

Figure 5.8: Shops in use in under-construction buildings along Mkunguni and Lindi Streets

Source: Fieldwork, 2014

Vibrant returns

All 20 developers and urban professionals said that monthly rents in Kariakoo especially from renting commercial spaces are higher than leasing out residential apartments. This attracts developers to invest in the area. During interviews with house developers in the area, one developer of Asian origin indicated:

> *"Any house developer knows that rents for commercial spaces are higher than residential spaces in Kariakoo because of the nature of the area. It is a business centre in Tanzania and it has also been a catchment area in East and part of Central Africa. Personally, I was motivated to construct a building in this area because of this (high returns)."*[23]

Moreover, developers asserted and emphasized that rents for commercial spaces in Kariakoo were not quite different from those offered in the CBD. The same response was aired out by financial institutions as the author probed the criteria for offering housing finance to willing house developers. Representatives (loan officers) of three banks justified that:

> *"Kariakoo is one of the areas in the city with high returns just after the CBD particularly for commercial and commercial-residential buildings. In this case, commercial spaces in Kariakoo almost pay as twice as much than residential apartments. Thus, we have no problem in providing housing loans to developers intending to construct commercial or commercial-residential buildings. The problem is on residential buildings and the issue is how will the developer payback the loan; since residential buildings have low returns. We therefore need a proof about other sources for paying back the loan."*[24]

5.3.2 Location and other motivations

Next to high demand for commercial and residential spaces and attractive rents charged, eleven out of twenty respondents noted that prime locations, short distance from the city centre, availability of stable services such as water supply, electricity, banks, hospitals, food markets (Kariakoo and Ilala) and other facilities available in the settlement were important factors that attracted them to invest in the area.

[23] Interview with a private house developer of foreign origin, Kariakoo area, April 2014
[24] Interview with NBC Senior Loans Officer, Kariakoo area, May 5, 2014

5.3.3 Changes of government policies/plans

Since the colonial era, Kariakoo had its first grid iron pattern and the land use was primarily for single to two storey buildings (URT, 1968). Single storey buildings were for residential use while two storey buildings were for residential and administrative purposes. Just after independence, there have been many changes in terms housing structures due to increased economic and social activities particularly commercial and service trade. Later on after independence, transformation included replacement of the old buildings with 3-4 or more storey buildings (URT, 1978). By the late 1990s, the area had almost lost its image with regard to the previous plan i.e. the Dar es Salaam master plan of 1978.

Furthermore, due to its prime location in the city realm, land value in the area was high. Therefore, the government decided to change the plan of Kariakoo so that the plan could match with the on-going developments. Hence, a redevelopment plan was prepared in 2002 as a result of what had been observed in terms of changes of land use, building structures and densities. Basically, the plan aimed at transforming the existing dilapidated buildings into a modern, thriving and attractive area as well as to cater for the increasing demands for business, commercial, residential and cultural activities (URT, 2002: 3).

During interviews and consultations with different respondents, the existence of the Kariakoo area redevelopment plan was the issue least pointed out by the respondents as a reason for the extensive housing reconstruction in the area. 14 out of 20 developers interviewed said that they were not aware of the existing plan as a tool to guide development in the area. Upon further probing on whether and how they are informed about the development conditions in the area, it was apparent that they were informed when they applied for the planning consent from the Department of Lands and Environmental Conservation of Ilala Municipality. My observation and argument on this aspect is that there is little or lack of public awareness about the Kariakoo Redevelopment Plan. Often, such planning documents are only available in central and local governments (Ministry, City Council and Municipalities), but not in the local areas. There are no even brief documents in the local areas providing basic information about the redevelopment of the area and key requirements for the same.

5.4 House developers (suppliers)

Identification and analysis by professionals and respondents interviewed placed house developers into three main groups: (i) private developers; (ii) public developers; and (iii) public-private partners (joint ventures). Private developers further can be placed into five sub-groups: (i) individual private developers; (ii) individual land occupier(s)-private developer; (iii) local real estate private companies; (iv) private developer - private developer; and (v) private real estate developers of foreign origins. It was noticed that the scale of investments in each category differed with respect to the amount of capital invested and the possibilities to access finance such as mortgage finance or housing loans. Basing on this argument, it was noted that high housing investments (buildings with 8 storeys and above) were mainly owned by private developers of foreign origins and those in partnership/joint ventures (see Appendix 9a).

5.4.1 Private developers

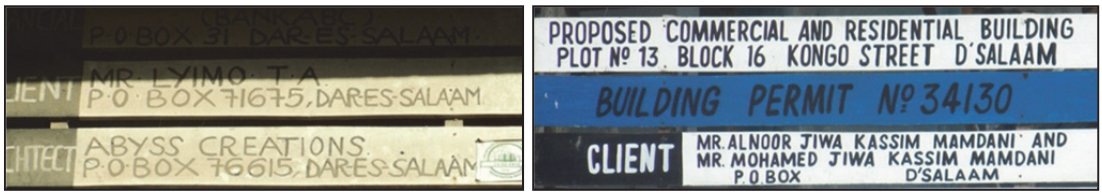
Individual or combined developers

This group consists of individual developers or persons who have inherited the property and have decided to redevelop it (cf. Figure 5.9). Rakodi (1995: 795) calls them individual or corporate

developers. House developers in this group construct and supply houses with up to five storeys and they often not go very high because of financial limitations. Results of interviews revealed that individual developers include business people from both Tanzania mainland and Zanzibar who buy land/houses from original owners or heirs/heiresses. Ethnic groups from mainland include Chagga and Kinga while from the Islands are Pemba. Upon selling land/house, original sellers relocate to other areas in the city or to their original home districts to establish new homes and life. Study by Kombe (1995: 96-97) in the area in the early 1990s revealed that the majority of land owners sold their land because they wanted to re-settle in rural lands from where they originated. A few wanted to sell so as to share the cash from the property inherited or could not sustain the recent land use.

In some cases, heirs/heiresses find it unworthy to sell land and share the cash amongst them. Instead, they opt for a partnership to construct a multi-storey building. The same applies to family members who buy land from heirs/heiresses and carry out redevelopment through a joint venture. Analogous with these results, Kombe (1995: 99) observes that some structures which had been erected or those which were under construction in Kariakoo till 1994 were family ventures from Zanzibar. They included family members or relatives in Pemba and some in the Gulf States such as Dubai, Saudi Arabia and Qatar. Saleh (2006: 373) adds that such modern buildings were a result of replacing traditional Swahili houses largely owned by numbers of Tanzanian businessmen of various background including nationals from Unguja and Pemba.

Figure 5.9: Individual/combined developers



Source: Fieldwork, 2014

The amount of housing units produced by this group of developers is generally small (2-5 storeys), primarily for renting and at times for business (one or two shops in the ground floor); being owned or used under the build-and-operate arrangement. These findings coincide with the conclusions made by Saleh (2006: 377) where he argues that houses built or bought in Dar es Salaam by the Zanzibaris had a distinct objective of financial gain and sometimes providing residence at the same time.

Rakodi (1995: 795) observes that the amount of property produced and owned by each category of developers has intimate link with financial capital as well as issues related to access to finance. In this regard, housing units produced and supplied by individual or corporate developers in Kariakoo were enhanced by own savings and borrowing from financial institutions particularly banks. This was revealed during interviews with developers and financial institutions[25] in Kariakoo. Basing on interview results with financial institutions it was observed that only one local bank out of three agreed to provide unlimited mortgage finance but with conditions including the mortgagee contribution to the construction cost not being less than 25% of the total housing cost as the following quotation illustrates. Most local banks provide up to TZS 500 million only. An official at NBC justifies their policies as follows:

[25] Interview with officials from NBC, CRDB and Access banks, Kariakoo area, May 5, 2014

"We don't have a limit and as a matter of fact, to us TZS 500 million is very little. But as I told you before, we look at the developer's contribution in the project and that will be the limit. For example, you cannot have only TZS one million but you ask for a mortgage or loan with a value of TZS 10 million. You need at least TZS 2.5 million to get TZS 10 million."[26]

In most cases, own savings include profits accumulated from business activities. Interviews showed that developers can pay costs related to land acquisition[27] from own savings while mortgage finance is largely used during the construction stages. Mortgage finance, therefore, covers hard and soft costs[28] as well as furniture, fixture and equipment costs.

When the question was posed to bankers regarding conditions considered in offering mortgage finance to applicant(s), responses confirmed that the type of project (in terms of possibilities to yield returns) is the most highly considered factor. Others include the mortgagee being a customer of a respective bank, holding an account at a branch within Kariakoo, aiming at carrying a housing project not limited to residential use only; and explaining and proving, with evidences, other sources for repaying the loan. That being the case, commercial and commercial-residential housing projects have high possibilities to secure mortgage finance than pure residential projects. The amount to be offered is then adjusted to reflect inherent risks, for instance, the power of production and sale. This means that the amount of credit made available is linked to the revenue that the project can generate over a period of time and hence the high possibility to pay back the debt. In cases where the borrower fails to pay back the loan, banks may claim it. It was further found, from respondents, that some house developers of Arabic/Asian origin or those with extended social networks from the Islands receive some money in terms of remittances from siblings who migrated in Asia particularly in the United Arab Emirates (UAE).

Other means of financing housing construction include borrowing from local financial associations e.g. Savings and Credit Co-operatives (SACCOS) and informal social security systems such as Money-Go-Rounds (UPATU[29]). The latter enhances small scale activities e.g. horizontal extension or alteration and it is not very common.

Land/house owner(s) - single developer joint venture

This group consists of heirs/heiresses who cannot redevelop their plots in order to match the on-going redevelopment requirements pressed by market forces as well as policy requirements. According to Kironde (2000: 160), 49% of land in Kariakoo is owned through inheritance occupied by low income families and 67% of land occupiers originating from the coastal region-39% from Dar es Salaam and 28% from Coast, Morogoro and Zanzibar regions (ibid: 161). As the number of heirs/heiresses increase, possibilities to sell the inherited land also decline. This is due to the fact that households comprise many members (average of five people). Therefore, the share each family gets from the land sold is not sufficient for each of them to build a new house and reserve some cash to establish business. The Unit Titles Act Cap. 416 (2008) has partly been

[26] Interview with NBC and CRDB bank senior loans officers, Kariakoo area, May 5, 2014

[27] *Land acquisition costs* include, for instance, buying land and paying broker fees and permits.

[28] *Hard costs* involve buying raw materials, physical excavating, demolishing and constructing the building; while *soft costs* include payment to architects, designers, lawyers and engineers involved in the design of the building.

[29] An arrangement of contributing to and receiving money from group members in turns. It is a lottery or revolving fund scheme financed through member savings. Members make equal periodic (weekly, fortnightly or monthly) contributions to a common fund and the total contribution of each period is paid to one of the members in turn. Formerly it was operated mainly by women but currently men are also involved.

a turning point to reduce land/house selling practices in Kariakoo as it encourages joint ventures and property co-ownership. This is primarily because sitting land occupiers are unlikely to take outright sale as priority rather than exploring options to own some units as facilitated by the Unit Titles Act. The law also cheers real estate developers to construct high-rise multi-units apartments and subsequently supply them to the market and each buyer would receive a title deed for his/her purchase. Hence, heirs/heiresses were increasingly looking for developers who can redevelop their plots (cf. Figure 5.10). This is opposed to the 1980s and early 1990s practices whereby original land owners used to sell their plots and migrate to their traditional villages to the peri-urban areas where they could find cheap land for housing.

Figure 5.10 Land occupier(s)-single developer joint venture

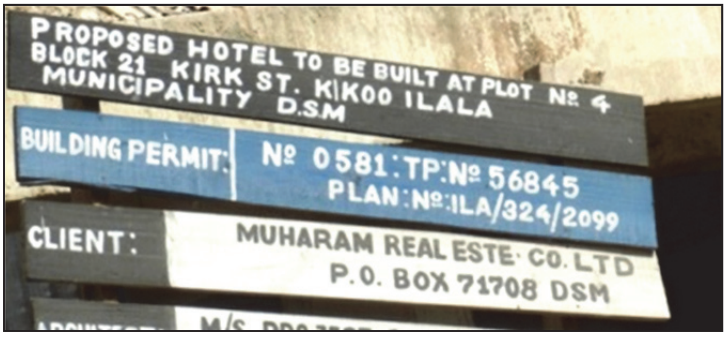
Source: Fieldwork, 2014

In joint ventures, land owners and developers normally agree on sharing the units e.g. shops and residential apartments before the building is constructed. In many cases, developers get a larger share of the building space while the land owner(s) gets the smallest - usually few residential units and sometimes one or two commercial spaces in the ground floors for business. After the agreed payback period or investment, depending on the agreements, land owners may regain full ownership of the building. Similar observations were made by Isaac (2007) and Felbermair (2012) in studies all conducted in the settlement. In some circumstances, heirs/heiresses lease out their apartment shares and opt for rental accommodation in other areas while developers sell or rent out their units.

Local private real estate companies

As shown in Figure 5.11, property development activities are often held by local real estate development companies. Access to land by this group is through outright purchase from original land/house owners. Usually the motives of investing vary with type and use of the investment. For residential apartments, preference is on constructing and selling the units to willing buyers. After selling they search for another potential area to construct another building and the same process continues (build and transfer arrangement). For commercial properties such as hotels, more preference is on managing (build and operate arrangement); while major sources of income for house construction include savings and mortgage finance from local banks.

Figure 5.11 House production by local private real estate developers



Source: Fieldwork, 2014

Private developer - private developer

In this group, two or more private individuals or real estate companies may pull their capital together to embark on a housing project in a single plot (cf. Figure 5.12 in Block 42, Plot no.13 along Swahili/Narung'ombe Street and on Plot no. 15, Block 70 along Livingstone Street). From Figure 5.12, the left photo represents local private developers' joint venture while the right represents a joint venture of local private real estate developers of foreign origins. In some cases, local developers partner with local developers of foreign origins. Before the project is executed, the parties agree on the modalities for sharing the building or units. The mainstream of such suppliers, local partners in particular, prefer leasing out and managing the property (i.e. build and operate arrangement) as their main investment strategy. However, local developers of foreign origins prefer selling than leasing (i.e. build and transfer). In most cases, where developers are involved in partnership with other private companies, land is accessed through outright purchase from willing land/house sellers.

Figure 5.12: Private-private joint venture developers

Source: Fieldwork, 2014

Foreign developers

Though developers in this group originate from different continents, the majority originate from Asian countries such as China, India and Saudi Arabia. This is, for example, the case in Figure 5.13 (Plot 13, Block L along Congo/Muhoro Street and Plots 34 and 35, Block A along Uhuru/Muheza Street). Access to land is through willing seller willing buyer agreements. The agreements include outright purchase of old houses from original owners while in some cases; land access is based on agreed conditions. For instance, besides receiving the agreed cash, land occupiers may also require the buyer to provide them with an alternative house in an area of their choice. When the conditions are fulfilled i.e. full payment for land is made and the alternative house is available, the original land/house owner transfers ownership to a new owner. Four out of five (80%) of developers in this group constructed buildings measuring at least eight storeys high mainly for sale; whereas only few (20%) aimed at leasing out individual housing units produced.

Figure 5.13: House production by private developers of foreign origins

Source: Fieldwork, 2014

When the researcher wanted to know whether these developers constructed flats for sale, rent or both and the reasons for their choices, replies were the same. The respondents generally said:

> *"We are solely engaged in constructing and after we have completed housing projects we sell individual flats and think about another new project in another potential and strategic area. We have chosen this option because we don't prefer dealing with real estate management issues such as rent default which, in most cases, are time and money consuming."*[30]

The preceding quotation shows that what developers primarily need is to recover costs and making some profit. Secondly, they avoid leasing out and managing the buildings which could be costly. Besides this, developers in this group do not want to deal with administration and maintenance problems which are also common. Thence, after the projects are completed and apartments sold, developers seek other plots, construct new buildings, sell and the house construction and supply circle continues. In terms of housing finance it appears that developers use own sources and loans from international sources. This conclusion is reached basing on the building projects' costs derived from data collected from AQRB whereby huge projects cost billions of Tanzanian shillings (cf. Appendix 9). On the other hand, buyers in most cases adopt a buy-to-let investment scheme. Interview results with the Municipal land officer showed that buyers of the apartments do not occupy them as residential homes; instead they rent them out.

5.4.2 Public developers

In Kariakoo, NHC is the leading residential or commercial-residential public agency involved in housing delivery. It possesses a huge stock of houses as it inherited the prime buildings nationalized by the government in 1971. The other leading public organisation is NSSF which provides only commercial buildings mainly for business activities. However, NHC still maintains the two to three storey buildings which were initially held by Asians; but following the Building Acquisition Act of 1972 they became NHC tenants. According to NHC strategic plan (2010), these 3-4 floors units are reserved for future high-rise building structures. Currently, only few

[30] Interview with private real estate developers A and K with Indian origin in Upanga and Kariakoo, April 16, 2014 and April 28, 2014 respectively

buildings owned by public institutions are being redeveloped through joint venture schemes. The NHC strategic plan stresses that buildings on the prime areas are expected to be redeveloped on a build and operate arrangement[31]. This means that NHC, using rent from its investments and government annual budget allocation, has no plan to sell its new buildings or apartments which are expected to be built in prime areas, Kariakoo inclusive.

5.4.3 Public-private developers

In this case, a private and a public developer embark on a housing construction project on a single plot or combined plots (cf. Figure 5.14 on Plot 1, Block 54 at Livingstone/Uhuru Street and on Plots 38/39 and 40/41 along Kisarawe Street). In Kariakoo, private individuals/companies partner mostly with NHC. As the projects are completed, NHC prefers a build and operate arrangement while most private partners opt for build and transfer arrangements; although they may also decide to lease out and manage. NHC, in most cases, provides land and contributes some funds to the total project cost depending on the terms and agreements reached. The same agreement is used in deciding the shares of the building units among the partners.

Figure 5.14: Housing supply by private-public developers

Source: Fieldwork, 2014

5.5 Scales of house developers/suppliers

Before discussing different scales of house developers in Kariakoo (which also applies in the case of Upanga in chapter seven), I find it useful to briefly describe the methodology and the source of data used to arrive at conclusions. To begin with, data collected from interviews, observations and other secondary sources facilitated the identification of systems involved in the production of housing units, the developers and their investment strategies, issues of access to land and finance, and the emerging house types including number of storeys.

On top of these data, another data set on registered building projects from AQRB over the period of 2006-April 2014 was used (see Appendix 9). The set provided, among other things types of developers (individuals, joint ventures, companies, etc.). Moreover, the intended uses of buildings, project values, location of projects (regions, streets) and contractors were clarified. This data set was then down-scaled to the level of Dar es Salaam City and later on to sub-cases (Kariakoo and Upanga). At this stage the names of developers, project values and contractors were useful because types of contractors closely linked to the project value; and the project value relates with the type of developer(s). The two data sets were merged to form a hybrid data set. The hybrid data set included housing project values, the subsequent number of storeys built, way

[31] Interview with NHC Regional Manager-Ilala regional office, Upanga area, March 25, 2014

of production/supply involved, the type of developer(s) and the year in which the projects were undertaken.

The last data set (from CRB) that specified the classes of contractors and their limitations in terms of project values to be carried out by a certain class of contractors, as discussed in chapter three, was merged with the hybrid data set in order to derive the scales of house developers basing on the classes of contractors and their project value limitations.

In determining the scales, the most important useful variables from the hybrid data set were project values, number of storeys constructed, names of developers and the supply chains while in the last data set (from CRB) variables of interest were classes of contractors and project value limits to be undertaken by each class of contractors. I finally concluded three types of developers: small, medium and large-scale whose projects are carried out by small, medium and big contractors respectively as summarised in Table 5.1. Therefore, the conclusions on the scales of developers based much on the project value and the type of contractors employed. It was not possible to use the rate of return as Rakodi (1995: 798) and Kongela (2013: 151) suggest because developers were reluctant to provide information.

Table 5.1: Scales of house developers in Kariakoo

Year	**Scales of developers and classes of contractors vs building project cost limits (mill TZS)**						
	Small scale developers vs small contractors		Medium scale developers vs medium contractors		Large scale developers vs big contractors		**Total projects**
	20-120	121-200	201-600	601-1,200	1,201-2,200	above 2,200	
2006	2	1	7	1	0	0	**11**
2007	4	5	33	8	1	2	**53**
2008	1	5	23	23	7	4	**63**
2009	1	2	12	23	12	3	**53**
2010	0	2	6	32	5	3	**48**
2011	1	2	6	33	15	8	**65**
2012	3	2	12	43	15	6	**81**
2013	1	6	9	24	11	2	**53**
04.2014	1	0	3	3	0	1	**8**
Total	**14**	**25**	**111**	**190**	**66**	**29**	**435**

Source: Field data, 2014

5.5.1 Small-scale developers

Small developers comprise individual or a team of heirs/heiresses. The group forms 9% of all developers and it mainly consists of the earlier mentioned Chagga, Pemba, Kinga and other ethnic groups. These finance the building projects through individual savings or borrow from local formal and informal financial institutions which include SACCOS and UPATU. They either own land (heirs) or buy it from original owners or owners' descendants.

Housing projects undertaken by this group range from one to three storeys, and involve vertical extension, alteration, renovation or refurbishment. The values of projects carried by this group range from TZS 20-120 million (US$ 12,500-75,000). Projects with values TZS 20-70 million involved alteration, renovation or refurbishment of existing buildings while TZS 80-120 million involve vertical extension of one floor. Analysis from Table 5.1 shows that 3.2% of all housing units are produced through this way and projects are mainly carried out by Class VII. Right from the table, 25 out of 435 building projects (5.8%) with values in Kariako less than TZS 200 million were intended to produce 2-3 storeys and were mainly contracted to class VI

contractors. This involved demolition and reconstruction or vertical extension of the existing buildings. Mlinga (2001: 198), on the study of the formal and informal construction sectors in Tanzania, adds that unregistered contractors and in some cases informal contractors[32] or local artisans (*mafundi*) are also employed by small developers. The type of developers, the construction technology and the nature of projects by this group suggest that the strategy is to generate income through renting. Previous discussions have shown that some developers let out some spaces and at the same time using one or two ground spaces to run a certain business. This also suggests that developers in this category are subsistence landlords. On the same aspect, Rakodi (1995: 797) observes that small developers in most cases rent out rooms in order to sustain or augment household's income, either by completing or maintaining the dwelling.

5.5.2 Medium-scale developers

They encompass developers ranging from individual to joint ventures and comprise 69%. Literally, this means that more housing units are produced and supplied by this group. Building projects carried out by these developers are between TZS 201 and 1,200 million (US$ 125,625 and 750,000). While projects undertaken by such developers had a minimum of three and a maximum of eight storeys, housing space production was through demolition and reconstruction. In this case, 111 out of 301 i.e. almost 37% of building projects with 3-4 storeys were mainly carried out by single/individual developers and single developers' joint venture. The rest, 63% i.e. 190 out of 301 projects with 5-8 storeys, belonged to local real estate developers/foreign firms, local real estate companies, public-private joint ventures, private-private joint ventures and few single developers.

In terms of contractors, most projects were contracted to medium contractors. The minority (111projects) were executed by Class V contractors while the majority (190 projects) were handled by Class IV contractors. Except for joint venture projects, which in many cases involve one part owning land and the other party having financial capital, the rest of developers accessed land through outright purchase scheme i.e. buying from original occupiers or their heirs/heiresses.

Housing units in 3-6 storey buildings were rented out and managed by owners while those in more than six storey buildings were sold out when the construction was completed. Those involved in the former can therefore be considered as petty-bourgeois developers. The difference between the two developers emanates from the strategy which each has on the housing project. In the former, suppliers lease out housing units in order to improve household income (from rent income) while the latter seek to improve their income from the money generated after selling the units.

5.5.3 Large-scale developers

The group mainly comprises developers of foreign origins, and forms 22% of all developers who employ big contractors to undertake building projects. Depending on the value of projects and the type of contactors engaged, they are classified in two sub-groups: middle large and large-scale developers. As seen from Table 5.1, middle large developers (69.5% of developers in this group

[32] Contractors who undertake the construction and repair of low-cost private houses. Some carry out maintenance and repair of medium- and high-cost houses, while a few build complete houses for middle- and high-income groups (Mlinga, 2001: 3).

and 15.2% of all developers) comprise developers whose project values range from TZS 1,201 to 2,200 million (US$ 750,625-1,375,000). Normally, such projects are carried out by Class III contractors. Buildings produced by this sub-group have between eight and 12 storeys. Yet, 29 out of 95 building projects valued beyond TZS 2,200 million are referred to as large-scale projects. Buildings in this sub-group are normally more than 12 storeys and project executors are Class I and II contractors, often foreign firms.

Outright land/house purchase from original land owners or their heirs/heiresses, except for few joint venture projects usually with NHC, is a common way of accessing land. The majority of developers in both middle and large-scale category construct buildings for outright sale using their own accumulated capital or international sources. Moreover, it was noted that the majority of large-scale developers owned multiple buildings. They have huge capital and have a tendency to develop and sell or own multiple buildings with purposes of expanding and reproducing capital in the form of landed properties. In other words, these are real estate developers who have already met their needs and are now producing for the market.

In summary, basing on the previous discussion on housing production and supply, the types of developers and their respective sources of finance; it is obvious that majority of developers use own sources particularly own savings. On this aspect, Isaac (2007: 49) records that 95% of construction funds in Kariakoo are mobilized from own savings and 5% from local commercial banks.

5.6 Housing production biography of X: individual to corporate developer

Behind the idea of biographies, I was interested in documenting developers' account of the series of life-time events on housing production or supply. The intension was to understand individual's pathways towards housing carrier or supply to the market using specific themes in a sequential order in respective time (years in this case). The themes were helpful in providing more specific information about the main idea. In this regard, the themes included location where housing units were built, their type, proportion/size and use, how land and finance were acquired and locations for future development/investment. The chronology was achieved through life-story interviews on housing carrier as the narration below by developer X (name withheld by the author) is presented by the author:

> *"X is a 45 years old businessman originating from Tukuyu, Mbeya region, a Kinga by tribe. He built his first two bedrooms family house in 1997 in his village. He then desired to build a small three bedrooms single family rental house in 2000 in Tukuyu town for purposes of generating income to overcome daily life i.e. domestic household needs. Because of financial limitations, he built that house in phases. He covered the construction costs from savings made from his business (buying rice from Tukuyu rural and selling it in Mbeya town, buying clothes in Mbeya town and selling them in Tukuyu rural). His parents owned land in Tukuyu town, which is his home town, and he was given part of it to build that house.*
>
> *Four years later, he bought a plot from a friend in Mbeya town and built the second. At this time he built a six bedrooms guest house, using profits from his business as well. What he earned from two rental houses was sufficient for family upkeep and also saved some cash. In 2006 he had diversified the business and chose Dar es Salaam a proper market. During this time he was involved in wholesale of rice to retail traders in Manzese[33] and part of it was sold in his shop. He also took clothes and other home-based products from Dar es Salaam to*

[33] One of the regularized and most densely populated informal settlements in Kinondoni Municipality and a business focal point for many people countrywide

Mbeya and Tukuyu towns on return. Later in 2007, he bought an old house in Manzese; demolished it in 2009 and constructed a two-storey commercial residential house (two shops in the ground floor and one apartment in the upper floor). He finished constructing that building in 2010. In the same year he joined friends who traded between Tanzania and China/Dubai; and he was convinced by his friends to change his business portfolio: from buying and selling food and clothes within Tanzania to buying home-based products-clothes, sanitary and finishing materials from China/Dubai and selling in Kariakoo, Dar es Salaam.

Three years after they started international business, they bought a house in Kariakoo (declined to mention the plot number and street name). After they had transferred ownership from the original owner, they applied for a mortgage at NBC and TZS 500 million were issued. On top of the housing loan, they added own cash and started the construction of a four storey commercial-residential building with the capacity to accommodate four shops and six families is under construction. Shops in the ground floor are already running and soon residential apartments will also be ready for use. As I probed him for their choice of Kariakoo than other areas in Dar es Salaam he replied that they chose Kariakoo because no house owner or developer thinks of looking for customers, customers look for housing space before anything, except sign boards, is put on the site. He added that investing in real properties is very interesting if proper location is taken into account."

Furthermore, when I inquired him on the status of Kariakoo in terms of redevelopment and possible areas in which redevelopment processes are pacing up he said:

"Since Kariakoo is almost full of tall buildings and it's difficult to secure land, developers are moving to Ilala and Magomeni."[34]

The above narration of the biography presents a progressive process of housing production and supply. The first and second experiences depict small-scale incremental housing production model with total dependence on own sources, while access to land through inheritance and outright purchase are critical. The third stage presents a progressive medium-scale whereby a developer carries out housing construction in stages but with less financial difficulties. Also a decision on where to invest and how much housing should be produced and supplied is dependent on how critical location in real property development and investment is. Commercial spaces in prime areas are in fact occupied even if the upper residential floors are still under construction. Finally, the amount of housing to be produced, including the housing type(s), relies on economic improvement of developers and customers as well as financial options/sources available.

5.7 Quantity and quality of houses supplied

5.7.1 Size of residential apartments and commercial spaces

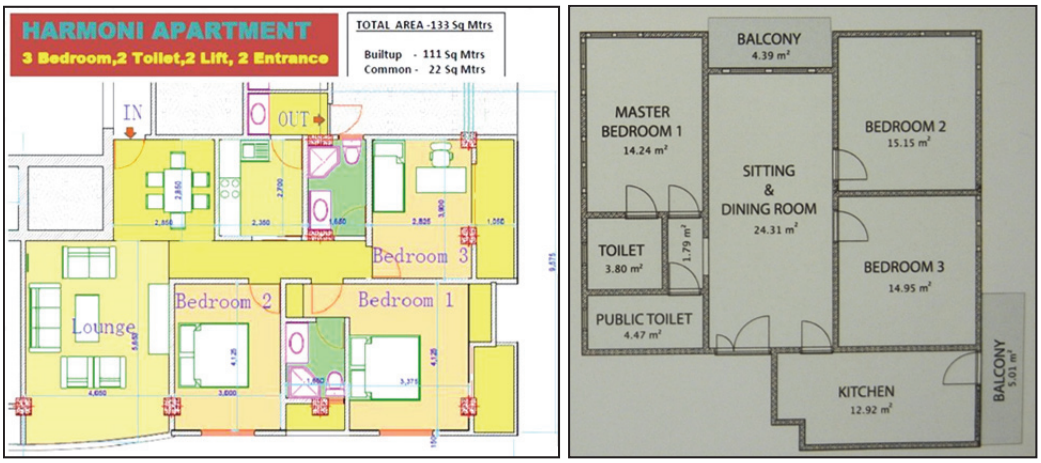
Sizes of residential apartments supplied in Kariakoo differ depending on plot sizes. On average, the gross floor area for a single apartment constituting two or three bedrooms is between 80 to 108m^2. For a three bedrooms apartment, two rooms are standard[35] and the third may be a master bedroom; while for a two bedrooms apartment, one room is standard and the remaining is normally a master bedroom. Standard bedrooms have gross areas between 12 and 16m^2; and

[34] Interview with individual/corporate house developer X, Kariakoo area, June 29, 2015

[35] Means a toilet and a bathroom are commonly shared by the two rooms' and the rest of users including visitors; while the master bedroom is self-contained.

master bedrooms are 19 to 20m^2 in size. The apartments also contain semi-public and public spaces such as the kitchen, usually combined sitting and dining rooms and balconies (cf. Figure 5.15 for Congo/Muhoro and Ungoni Streets respectively). Commercial spaces on the ground floors had an average of six shops: two to three shops in non-corner plots and six in corner plots, with a maximum of 16m^2 each. Moreover, high-rise buildings provide between three and 20 residential apartments depending on its height (number of storeys).

Figure 5.15: House plans along Congo/Muhoro and Ungoni Streets



Source: Field data, 2014

5.7.2 Services available

Portable water supply is provided by public water supply authority (DAWASA). The study noted some limitations because of ever increasing population and inadequate capacity of the existing infrastructure (old and outdated water supply systems). In order to meet the current demand, developers have provided back-up water supply systems comprising deep wells. Developers, urban professionals and brokers added that the wells are normally dug beneath ground floors; from which water is pumped and stored in the water tanks located on top of buildings (cf. Figure 5.16).

Figure 5.16: Raised water tanks as water shortage shock absorbers

Source: Fieldwork, 2014

Also, the area experiences shortage of electric supply provided by TANESCO and thus back-up electric generators are often provided to supply electricity to both tenants and owners. Likewise,

there are severe sanitation and storm water problems as spreading of liquid wastes and storm water is obvious. These problems imply dilapidation and incapability of such infrastructures. Moreover, roads are not accorded due maintenance or rehabilitation as there is no record of periodic, preventive or corrective maintenance programmes. In most cases, Uhuru road, which frequently experiences water logging during the rainy season and pot-holes, has been undergoing corrective maintenance. Only a portion of this road, from Msimbazi-Uhuru roads junction to Karume area, was being improved. Also, Msimbazi and Morogoro roads which are part of the Bus Rapid Transit (BRT) infrastructure project were being rehabilitated.

Security services and car parking lots are provided by only few particularly large-scale developers. Parking lots, usually located on the ground and first floors within the building, are also let out on monthly basis.[36] Equally, lifts are rarely provided in taller buildings exceeding four floors. Those provided in few buildings are not frequently used because of insufficient and unreliable power supply. Furthermore, figures 5.15 and 5.16 represent common apartment layouts in Kariakoo which do not cater for other requirements. Apparent in most units, for instance, is lack of laundry facilities. As such, washing is done in toilets while drying is on balconies. Also, balconies are used as areas for fitting mechanical cooling devices (air conditioners) whose water drain from balconies of upper floors down to the ground. From these practices, unmanaged water from air conditioners and wet clothes hanged in balconies are inconvenient to pedestrians.

5.7.3 Building technology

As discussed earlier, building technology and finishing style differ with respect to developers' affordability and the type or class of contractors employed in building construction activities. Big contractors are more technically skilled and use modern building technologies. Therefore, they are contracted by large-scale developers for huge housing projects. Small or local contractors, who often use modest manual building technology, are employed by medium and small-scale developers. Interviews with urban professionals and real estate experts revealed that the majority of buildings in Kariakoo are built and finished using low or modest manual technology. From Table 5.1 it can be seen that 39 out of 435 (around 9%) and 301 of 435 (nearly 69%) of building projects for the nine years period were undertaken by low and medium contractors respectively. The rest, 95 out of 435 (about 22%) were constructed by big contractors at a fairly good finishing quality belonged to private developers of foreign origins.

A series of under-construction buildings collapsed in Kariakoo in the 2012-2013 period, which caused loss of life and multiple injuries, is another evidence of modest manual building technology used in Kariakoo. In these incidents, low building technology and professional negligence were mentioned and emphasized as one of the main reasons. In this aspect, contractors sometimes use fake and substandard materials and handle almost of all the construction activities to unexperienced foremen. Also, they usually pay short time visits on one site and afterwards move to another. Other ingredients for the low housing quality include poor development control (building inspection) and corruption among public officials and professionals particularly in the local government. Regarding low building technology, Mlinga (2001: 174) reports that most contractors employed in Kariakoo still relied on handwork and they were unskilled. More frequently, unskilled persons, who mobilise themselves into gangs and specialise in carrying out specific manual construction tasks like excavation, concreting, etc., are employed. Hence, they do not guarantee proper mixing and so do the stability checks of buildings. Isaac (2007: 60), on the

[36] Interview with representatives of Y investment of Chinese origin, Congo/Muhoro Street, April 24, 2014

2005 Kariakoo buildings inspection report of 505 buildings on their quality and standard, adds that 354 out of 505 buildings (nearly 70%) inspected in terms of quality and standard were substandard and not built according to the required or permitted standards. And 103 out of 354 buildings (29.1%) had serious physical and structural flaws.[37] These results reveal the relationship between the type of contractors, technology employed and the quality of buildings.

5.7.4 Furniture and fittings

Almost all residential apartments for rental and sale supplied in Kariakoo were not provided with furniture except few supplied by private developers of foreign origins (cf. Figures 5.17 and 5.18). Interview with developers in Kariakoo showed that only four out of twenty developers (20%) had agreements to provide furniture in the apartments. The main reasons for not providing include customers' individual interest, preference and taste on certain types of furniture. Thus, an apartment seeker (buyer or renter) is supposed to buy his/her own furniture upon buying or renting. About fittings, all 20 respondents agreed to provide but without appliances. The fittings provided include electric sockets and water tabs just to mention a few. Nevertheless, some customers would wish to make slight changes and modifications on some fittings in order to meet their specific requirements.

Figure 5.17: Partially furnished apartments for sale along Ungoni Street in Kariakoo

Source: Field data, 2014

During interviews and physical surveys, the author captured some photos for typical full furnished rental apartments which were in the market as Figure 5.18 shows. The majority of these apartments were provided by few private developers of foreign origins and had all fittings and necessary furniture particularly in the sitting, dining and bedrooms.

Figure 5.18: Full furnished apartments for letting along Congo/Muhoro Street in Kariakoo

Source: Field data, 2014

[37] http://sabahionline.com/en_GB/articles/hoa/articles/features/2013/04/02/feature-01

5.8 Prices, rents and paying modalities

5.8.1 Building land

The study found out that the majority of land buyers (85%) in Kariakoo are businessmen while sellers are mainly original land/house owners or their heirs/heiresses. The rest 15% constitute other categories including real estate development firms and employees in the private or public sector. Depicting similar trends, Kombe (1995: 99) study on land buyers in Kariakoo establishes that 91% of land buyers were businessmen mainly comprising persons of Asian origin. The rest were salaried people and a negligible proportion of indigenous people.

This work argues that the decrease in proportion of land purchasing by businessmen might have been caused by a changing property market environment particularly the remarkable increased demand for commercial spaces in recent years. More people, including real estate developers, have been attracted to buy land for investment purposes in the area. Before 1980s, the private real estate sector was negligible and the investment climate for the private sector was poor resulting into slow redevelopment processes. The high rate of redevelopment started in the mid-1980s after the introduction of the economic liberalisation policies; which propelled increase in land prices. Lucian (2011: 3) adds that the enactment of the Tanzania Public Corporation Act (1992) opened doors for financial institutions, especially pension funds to operate commercially. This was the time of mainstreaming of private sector investment in the country's economy and this coincides with the intermediate redevelopment stage of Kariakoo. Redevelopment processes intensified latter and reached the peak starting from the mid-2000s.

Resulting from above, Kombe (1995: 99) reports that both land price and real price per square meter for non-corner plots in secondary and tertiary commercial areas were unstable and hence the land market was quite imperfect. From 1988 to 1991 prices were increasing while in 1991/92 they decreased (Table 5.2). In the prime commercial area[38], the price was higher because most properties were nationalized in 1972 after the introduction of the Building Acquisition Act (1971). During this time, buildings worthy more than TZS 100,000 (US$ 20,000) were nationalized. The remaining few were privately owned and then sold at higher prices. Lupala (2002: 110) concludes that between 1988 and 1992, plots in Kariakoo were sold at between TZS 13.2 and 27.0 million or equivalent to TZS 52,380 to 107,142 per/m^2. This study considers the standard plot size to be 250m^2 since about 90% of plots measure this size. As expected, land prices have continued increasing as high demand for housing land has kept increasing whilst the supply is generally fixed.

Table 5.2: Land/house prices trends in Kariakoo (1988-2015)

Year	Av. price (mill. TZS)	Real price/m^2 (TZS)	Price change in %
1988	6.2	19,690	
1989	7.0	17,670	-10.2
1990	11.25	23,710	43.2
1991	15.5	26,375	11.2
1992	13.5	19,070	-27.7
1998	50	200,000	949
2002	100	400,000	100
2004	350	1,400,000	250
2005	500	2,000,000	42.9
2009	600	2,400,000	30
2014	800	3,200,000	33.3
2015	1,200	4,800,000	50

Source: Kombe, 1995: 99 and the Author, 2015

[38] Streets along Lumumba, Uhuru and Msimbazi roads with high land and rental values. When this study was conducted, plots/houses along Aggrey, Livingstone, Sikukuu and Mchikichini Streets had similar attributes.

Field results showed that in the late 1990s when the redevelopment of Kariakoo was still moderate, land (plot) price had increased to TZS 50 million and reached TZS 100 million in 2002. Higher land prices were vivid during the saturated redevelopment stage. On average, in 2004 and 2005 they stood at TZS 350 million and 500 million. When this study was conducted (in 2014), plots were being sold at between TZS 600 million and 800 million (US$ 375,000-500,000[39]) equivalent to TZS 2.4 and 3.2 million (US$ 1,500 and 2,000) per/m^2 in the secondary and prime commercial areas respectively. In recent months (August 2015), the asking price of land in the prime commercial areas was TZS 1billion and above (US$ 625,000) i.e. TZS 4.0 million per/m^2. For instance, a traditional Swahili house on a 270m^2 plot along Kipata/Nyamwezi Street was being sold at about TZS 1.2 billion (US$ 750,000).[40] When the researcher probed the reasons for the sharp rise in price from 2002 onwards, professionals echoed that the increase was a result of the official recognition of the land market value and as stipulated under Section 1(1) (f) of the Land Act No. 4 (1999) on the clause "land has value". They also added that lack of a land market regulatory framework to check speculation and enhance access to information constitute to important facts as well. Real estate agents also added that the rise was a result of high demand and speculative behaviours of land occupiers.

The right to use land has to be transferred to a buyer once land is sold. This process involves the buyer, seller, broker/agent, court or lawyer, Tanzania Revenue Authority (TRA)[41], Municipal Councils and the MLHHSD. The seller and buyer begin the process and sometimes involve agents/brokers. When consensus is reached the seller and buyer seek consultation from a lawyer/court in order to prepare the selling agreements. Thence, the seller surrenders the title deed to the Municipality and then pays stamp duty fee of 10% for residents and 20% for non-residents of the property price to TRA before filling in the disposition forms. The filling in of the disposition forms guarantees the municipality to forward the forms to the Land Commissioner in the Ministry for approval. It also legitimizes the processing of another title deed in the name of the new owner. With a note that the main player in this process is the real estate agent/broker at different follow-up stages, a number of deceitful deals are involved.

Opinions made by Kombe (1995: 97-98) on this aspect hinge on the involvement of agents in dubious deals in land transaction and transfer of ownership processes; which involve a pyramid of trips particularly during the title transfer stage at MLHHSD and DCC. This study noted also that during this process there are dishonest deals played by sellers, buyers and lawyers (with or without involving agents) in order to avoid stamp duty tax. According to the current land prices as stated above, the tax ranges between TZS 60 and 100 million (US$ 37,500 - 62,500). In order to avoid it, two selling agreements are prepared and signed by both parties. The first agreement bears a genuine price while the second contains a reduced one with intentions to avoid capital gains tax (government revenue) and other fees during ownership transfer. When asked to mention the price in the counterfeit agreements, a Town Planner said:

> *"In most cases, the actual land prices in Kariakoo range from TZS 600 to 800 million. The prices, normally written on land selling agreement forms for purposes of ownership transfer,*

[39] At this time (in 2014) the exchange rate for 1 US$ was TZS 1,600.
[40] Also see https://kupatana.com/real-estate/land/plot-for-sale-at-kariakoo-kipata-nyamwezi_i310378
[41] The Authority was established by Act of Parliament No. 11 of 1995 and started its operations on 1st July 1996. In carrying out its statutory functions, TRA is regulated by law and is responsible for administering impartially various taxes of the central government.

range between TZS 90 and 200 million. I have never seen prices more than those during my over 10 year's tenure here as a Town Planner."[42]

Moreover, land prices are inflated by agents or brokers who would like to benefit from the transaction. In practice, if the agent is involved in the transaction, s/he requires to receive 10% of the selling price as a commission. In most cases, the cost is bore by the buyer; very rarely it is shared by both seller and buyer. This means that agents are another strong gear of the rapidly inflating land price in the area. The other scenario which was observed is the behaviour of sellers and buyers shelving grassroots institutions, the sub-ward[43] leaders in the urban administrative set up, during land transaction processes in their areas of jurisdiction[44]. In addition, during physical surveys it was common to find house walls inscribed *"Hapa hapauzwi, ogopa matapeli"* which means *"Not for sale, beware of conmen."* On this matter, land occupiers said that some unfaithful family members collude with land brokers to organize and attempt to sell land/houses which are not theirs. These situations inform that the land market in Kariakoo is imperfect and uncontrolled by government organs.

5.8.2 Housing units

Residential apartments

Prices of apartments in Kariakoo differed depending on the size (number of bedrooms), whether the apartment is full or unfurnished and the types of services available. The price for unfurnished apartments ranged from US$ 85,000-90,000. These had two bedrooms including other public or semi-public spaces such as sitting and dining room, kitchen, toilet and balcony but without parking. For a three bedroom partially or fully furnished apartment but without parking, the price was between US$ 100,000-110,000; while that of a four bedrooms apartment stood between US$ 110,000 and 150,000. In very few cases, the prices for three and four bedrooms apartments included parking charges.

On the case of rents, the monthly rent for a three bedroom unfurnished apartment was US$ 800, US$ 1,000 with furniture only; and US$ 1,200 for a full furnished i.e. with furniture and appliances. The rent for a two bedrooms unfurnished apartment was US$ 600-750. In 2007, the same apartment was rented at US$ 250 per calendar month in the private housing sector while US$ 200 was the rent for NHC apartments (Isaac, 2007: 50). This shows that in the private housing sector, the rent had increased by 140% to 200% (an annual increase of 20% to 28.6% resp.) just within the period of seven years (2007 to 2014). Also, there was an increase of 200% to 275% (an annual increase of 28.6% to 39.3% resp.) for NHC newly constructed buildings. The increase in rent for the new NHC apartments is due to the fact that currently, NHC does no longer construct subsidized housing for sale or renting as it was its former objectives. Instead, it has embarked on commercialized real estate business. That being the case, NHC offers its apartments at the current market prices and rents.

Commercial spaces

It should also be noted that Kariakoo is becoming a business centre and that there is high demand for commercial rental spaces. Arising from this, rents for shops depended largely on the location

[42] Interview with Senior Ilala Municipality Town Planner, May 02, 2014

[43] The lowest level administrative structure/unit in the Tanzanian local government set up. At this level, elected political party leaders also work for the government.

[44] Interview with Gerezani sub-ward leaders, Gerezani area, May 15, 2014

and size of the shop in the settlement and in the building as well. An interview conducted with a businessperson, who also holds a bachelor degree in business administration along Narung'ombe Street (one of the prime commercial streets in Kariakoo) since 2003, mentioned that in that year the rent for commercial spaces (shops) was TZS 250,000. By 2007 it had shot to TZS 350,000. The following quotation further illustrates the increase in commercial rental price over time:

> *"When I started my business here (along Narung'ombe Street) in 2003, the monthly rent was TZS 250,000. By 2007 it had increased to TZS 350,000 while in 2012, it was around TZS 600,000. Now (2015) the rental charge has reached TZS 1million and in some streets 1.5 million. This is a tremendous increase for a low economy country like Tanzania."*[45]

During the first data collection phase (January-June, 2014), developers and renters stated that monthly rents for commercial spaces particularly shops located on the ground floor along prime commercial streets e.g. Congo, Aggrey, Sikukuu, Mchikichini and Livingstone ranged from TZS 600,000 to 800,000 (US$ 375-500). Shops in secondary commercial streets were leased at TZS 500,000 (US$ 313). However, shops located in the upper floors fetched the least rental charge of TZS 300,000 (US$ 187.5). The difference in rental charges between ground and upper floors was customers avoiding to climb upstairs using high raised external stair-cases. These results show therefore that there has been an increase of over 90% between rents offered in 2007 and in 2014 at an average annual increase of 12.9%. During the second fieldwork phase (June-August, 2015) when the researcher wanted to know if there has been a further increase for the same spaces along same streets, responses were positive. Businessmen stated that rental charges had risen to TZS 1.0 to 1.5million (US$ 476-714).

Concerning rent paying modalities, it was revealed that large-scale developers who construct and lease out apartments prefer upfront payment of a minimum of 12 months' rent per lease agreement. Some medium and small-scale developers reduced the amount of time to six months but the majority have also moved to one year rent arrangement. As per apartments for sale, buyers need to pay 100% of the selling price or 50% down payment of the apartment selling price. The remaining balance needs to be paid within the next six months either in lump sum or by instalments.

For commercial spaces (shops) the paying modality was different. Renters were supposed to pay rent for a minimum of one year and a maximum of three years depending on the location of the space. Three years arrangement was dominant in the prime commercial streets while in secondary and tertiary commercial streets one to two years arrangement was applicable.[46]

5.9 Information flow

Results from interviews carried out with developers portrayed that small and medium-scale developers depended much on brokers to disseminate information on the available housing units. They have opted for brokers because of high fees charged by professional real estate agents. In this case, brokers refer to those unregistered middlemen engaged in real estate activities, serving as a bridge between sellers and buyers. As it is the case in most parts of the city particularly in the informal market, brokers in Kariakoo also lacked formal spaces for carrying out their day-to-day real estate activities. Instead, they were mainly sitting with shoe shiners along building arcades or

[45] Interview with Mr. K-Tenant and businessman, Narung'ombe Street, July 22, 2015

[46] Interview with Brokers S and F, Livingstone Street, May 06, 2014 and Mr. K-Tenant and businessman, Narung'ombe Street, May 07, 2014

under small umbrella shades provided by shoe shiners. Information on their availability could also be found easily from shoe shiners. Only few registered real estate agents worked in offices. Apart from using brokers, such developers said that they could also ask their siblings to look for tenants/buyers, using existing tenants to inform friends, relatives or any other persons whom they knew. These could help to disseminate information about the availability of vacant commercial spaces or residential apartments. Conversely, large-scale developers who are the minority in Kariakoo particularly those of foreign origins relied much on real estate agents to advertise housing units. Real estate agents frequently used their companies' websites and billboards situated along roads. In some cases, where large-scale developers did not use real estate agents, they pinned posters on wall fences or on construction sites while buildings were under construction.

5.10 Customers

5.10.1 General characteristics

Ethnicity

Although it was difficult to find answers from all house developers about customers, some provided useful information. Responses from developers showed that main customers in Kariakoo range from middle to high middle income groups. The study results further revealed that customers were divided in terms of the use of housing units: for commercial and residential use. Main customers for commercial spaces were the Pemba, Chagga, Pare (rarely mentioned as they are usually combined with the Chagga), Kinga, Tanzanians of foreign origins mainly Indians, Arabs and Chinese as well as other ethnic tribes. Residential apartments were found to be demanded by all ethnic groups whose members can afford paying rent or price. Findings from the field showed that almost 37% of the shops mainly located on ground and rarely on first floors in Kariakoo are run by the Pemba, closely tracked by the Chagga (35%). The Asian descendants mainly Indians, Arabs and now the Chinese constituted 20% while the Kinga and other ethnic groups comprised 8%. In comparison with these results, Saleh (2006: 376) reports that there were 973 recorded shops in 1999 and 41% (398 shops) belonged to Pemba and Unguja descendants of whom 79% (314 shop owners) came from Pemba; making 30% of the owners. Next to the Zanzibaris followed the Chagga and Pare from Kilimanjaro region or Tanzanians of Indo-Pakistan origin.

Brokers, when asked to list who are the main occupiers of commercial spaces in the area stated:

> *"The majority who rent commercial spaces and run business in Kariakoo are the Pemba, Chagga, Indians, Kinga, Chinese and the rest of ethnic groups. The Chinese have increased in the recent time."*[47]

K Apartments real estate developers whose building was in the market along Somali Street added:

> *"All three commercial spaces on the ground floor have been rented out to businessmen of Indian origin. Residential apartments are still vacant."*[48]

[47] Interview with Brokers S and F, Livingstone Street, May 06, 2014
[48] Interview with K Apartments Ltd, Somali street, April 2014

Medium and high quality residential apartments, built by medium and large-scale developers respectively, were bought by high income individuals and then rented to emerging middle or high income classes, financial institutions and private companies for office use and business. The middle income households rented apartments developed by small-scale developers whose apartments ranged from low to medium quality.

Age, occupation, marital status and household structure

Buyers and renters of apartments are unmarried and married skilled young and senior graduates at the age between 26 and 40 years old. Concerning occupation, questions on the occupation status, type of occupation and the economic sector were posed. Responses showed that most of middle and high income households were permanent workers as junior or senior government officers, holding managerial or administrative positions in banks, international or local NGOs, as well as those who run private businesses. The unmarried of African origin had an average household number of 2-4 and they lived with relatives inheriting the responsibility of guardianship e.g. enhancing their education carrier. Those married had 1-2 children but with an average household size of 5-6 people. On the contrary, those of non-African origins married couples with or without children did not live with relatives but just with a maid/man servant (commonly known as house girl/boy) who comes on daily basis (do not live in their employers' homes).

5.10.2 Household resources

It is important to note from literature that one of housing choice determining factors is the amount of resources an individual or a household possesses. Resources, as discussed in the former chapters, may include human, physical, financial, natural and social (Rakodi and Lloyd-Jones, 2002: 10; Sheuya, 2004: 4; Qi, 2006: 43). In this study four types of resources which buyers/renters possess were mostly mentioned. These include human, social and physical resources.

Human resources

Emanating from households' general characteristics above, all customers are at least educated. Some had professional or technical skills and were self-employed/employed in the private or public sector while others were self-employed. Responses from developers revealed that almost all household heads, except children and those in a household who go to school, were engaged in a certain productive activity within the settlement or in the surrounding settlements. Within the settlements, because of limited formal employment opportunities except in banks, most dealt with private businesses (shops of different commodities). This is due to the fact that customers are aged between 26 and 40 years which is a working group.

Social resources

Customers in Kariakoo had different ethnic backgrounds and all members of a certain ethnic group were socially tied up together. The strong tie was mortared by trust among them deeply rooted in mutual relationships and trust. This network enabled them to share information and experiences on different issues pertaining housing market. For examples, as tenants they disseminate information to seekers of their ethnic groups on the availability of commercial spaces in the area. As landlords or employers they offer commercial/residential spaces or employment to people with whom they have kinship or friendship. For Muslims, for instance, networks operated

on trust as well as on the given word that is reinforced by routine religious arguments and the use of Quranic procedures. This has a remedy when recruiting employees or in cases when potential conflict situations during the course of running business arises. Saleh (2006: 376), with reference to the Zanzibaris traders in Kariakoo (which of course applies to all groups) who are mostly involved in shop keeping, butchery and restaurants activities, affirms that employment by this group functioned according to family and friendship model. Hence, they rarely employ people from outside this network. According to him, the adaptation of the model follows the rule that:

- It acts as a means of protecting them against misappropriation of funds;
- It saves them as a way of providing jobs and social advancement to members of extended family; and
- It saves as a means of reducing salary costs.

Social networks particularly trust was also reported to be effective during processes pertaining to access to mortgage finance or loans in banks where the expected borrower is supposed to present referees. On this it was found that in most cases, the referees of the loan applicant were of the same ethnic group.

Physical resources

Information on physical resources of customers provided that most renters of the commercial spaces, except those of Asian origin, do not live within Kariakoo. They are tenants somewhere else or they own houses in the intermediate or peri-urban areas. Saleh (2006: 377), with reference to Zanzibaris shopkeepers in Kariakoo notes that they had their priority residences in the archipelago i.e. in Unguja and Pemba islands. However, it should be known that spaces on the ground floors are primarily for commercial use and due to their small sizes; shopkeepers cannot use them as sleeping places during the night. Therefore, shopkeepers still need to travel to other areas where they have residences (rental or owned). Some businessmen especially of Asian origins (Indians, Chinese and Arabs) live within the area or in Upanga as owners of apartments or tenants.

One or two car ownership predominated to all ethnic groups and hence private transport was more preferred than public transport. This behaviour was proved by the tendency of car parking in front of every shop from the time of starting business in the morning till evening hours when all businesses are closed. It was also found that the majority of business operators had the ability to buy generators in cases of uninformed power cut-offs particularly during the day time.

5.11 Summary of key findings

About 94% of housing units produced and supplied in Kariakoo are through demolition of single residential or two to three storey commercial-residential buildings and replacing them with multi-storey mixed use buildings. Additionally, 6% of the housing units produced are a result of extending and renovating buildings progressively. Whereas high demand, particularly for commercial spaces, attracted more investments in the area; the existence of Kariakoo redevelopment plan did not motivate majority of developers to engage in real estate activities in the area. Also, developers existed in three categories. Whereas 69.2% of all developers were small and medium-scale, only 21.8% were large-scale. Small and majority of medium-scale developers intend to rent out and manage while the majority of large-scale developers intend to sell out housing units when building projects are completed.

On the one hand, land was accessed mainly through outright purchase from original owners or their heirs/heiresses and displacing some of them from the area. Resulting from the adoption of neo-liberal economic principles in mid-1980s and lack of market regularly mechanisms, land price has remarkably increased reaching TZS 1 billion (US$ 625,000) in 2015 as opposed to TZS 6.2 million (US$ 3,875) in 1988. It is worth noting, however, that the rapid increase in land price is an indicator of informal land market in the absence of a formal regulatory system. As a result, there are wide chances for deceitful deals among actors particularly brokers, buyers and sellers in land transaction processes which partly inflate land/housing price.

Likewise, rents and prices for commercial and residential units were generally higher regardless of their modest quality. Commercial spaces, depending on their respective location, were rented out at between TZS 600,000 and 1,000,000 (US$ 375-625) per month. Regarding rental payment for commercial spaces, house owners have shifted to advance payments whereby would-be renters are required to pay advance payment for one to three years. Very few accept advance payments of six months of the monthly rental charge. The average monthly rental charges for residential apartments stood at US$ 800 and 1,200 while prices of the same were between US$ 100,000 and 150,000. Upon agreeing on the price, a buyer is allowed to pay cash or advancing 50% upfront payment and can pay the balance by instalments within a period of six months. Despite high rents and prices for housing units in the settlement, basic infrastructure services such as portable water, electricity, roads, parking spaces, waste management and systems were not sufficient to cater for the demand of the increasing population.

Few buyers of residential apartments were high income households who, after buying, lease out to renters with intensions to diversify income. Equally, customers for commercial spaces were generally high-middle income individuals comprising mainly Chagga, Pemba, Kinga and other ethnic tribes. There are also few Tanzanians of foreign origins (Indians and Arabs) while another Asian business people such as the Chinese have become popular renters in the area.

This chapter has shown that high demand, particularly for commercial rental accommodation, is one of the key factors which have attracted developers to invest in Kariakoo. With the assumption that many developers would maximize space so as to produce more units and ultimately earn more income; the next chapter examines how developers use plot space and the resulting street configuration (morphology).

6 HOUSING PRODUCTION AND URBAN MORPHOLOGY IN KARIAKOO

This chapter analyses the spatial effects of housing production particularly the resulting urban morphology. Urban morphology is a blend of various elements including plot characteristics, density characteristics, house forms, street configuration and spatial qualities. In order to achieve this objective, an assessment on how density is actually manifested at plot and street levels was done. Therefore, land use change over time and space, and spot densities were studied. Spot densities helped to find out whether house developers are complying with planning regulations and building standards. Principally, construction activities at plot level ought to be guided by specific principles or regulations in order to produce liveable indoor and outdoor spaces. This is inter alia necessary so as to create a balance between indoor and outdoor spaces as well as activities; and subsequently check conflicting land uses or public health threats.

6.1 Conversion of land use

This section discusses changes of functions [use] of buildings in Kariakoo from the colonial era to the present time. It also traces the factors that triggered the changes.

6.1.1 Colonial era

Kariakoo neighbourhood, as it is understood from the colonial period, had its first grid iron (chess-board) layout prepared by the German colonial administration. The area was a designated native Africans' residence with provisions to build traditional low-rise single family detached residential buildings. Later on, few other uses such as commercial, institutional and service trade were introduced, but within one to two storey buildings. Since the 1950s, new structures emerged i.e. three to four storey buildings (URT, 2002: 1).

6.1.2 Post-colonial period

Ujamaa period and introduction of Ujamaa policy (1960s-early 1980s)

This period became conspicuous just after independence. While the country was characterised by a dominance of public/state led (low) economy and generally poor living standards; *ujamaa* and self-reliance policies were advocated across the country. Thus, the economy was strictly under the control of the state. Land being state-owned and with low value, the focus in land development was directed on public related projects and activities. The private sector in the economics and social development was very limited. Under the Acquisition Act of 1967, private property especially ownership of estates was restrained. Four years later (in 1972), nationalization programme took place as part of the implementation of the Ujamaa African Socialism policy. Following this policy, building structures worthy more than TZS 100,000 i.e. equivalent to US$ 20,000 most of which were owned by Asians, were nationalized, placed under the Registrar of Buildings and later under the National Housing Corporation. Therefore, there was general stagnation of building construction sector and real estate investment activities, specifically in the city centre, because private business and enterprises remained at the lowest economic ladder (Moshi, 2009: 39). Moreover, most of the major means of economy were put under the custody of the government (ibid).

Despite economic restrictions on the private sector as well as hostile development conditions under the *ujamaa* policy, Kariakoo continued to undergo land use and housing type changes due to the increasing demand for rental and residential spaces. For instance, the idea to

prepare the first Kariakoo redevelopment plan in 1969, which followed the 1968 Dar es Salaam master plan, was to accommodate the new land uses as well as meet increased housing demands. Thence, the 1969 redevelopment plan designated Kariakoo neighbourhood a residential area in character but with few recommendations on other uses. These include provision for development of a high-density commercial and residential core around Kariakoo market and extending to Lumumba Street on the East. In this area, maximum plot ratio of 2.5 and building height of up to five storeys were endorsed. Moreover, a new land use along Lumumba Street facing Mnazi Mmoja Grounds for government, public institutions and other quasi-government projects was introduced. Till 1978, 69.9% of Kariakoo neighbourhood comprised planned residential land use. The rest of land uses were as Table 6.1 shows.

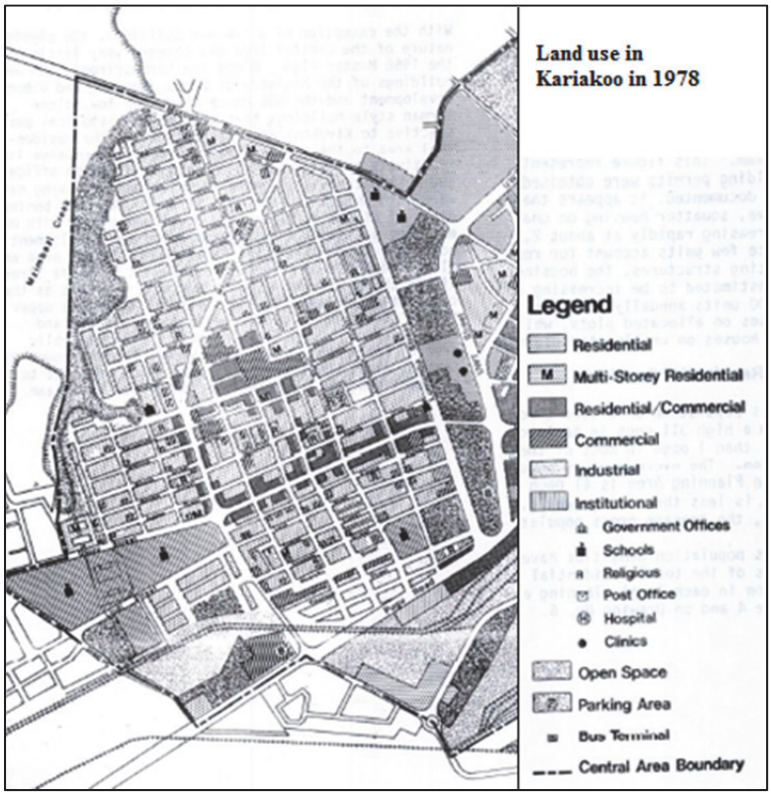
Table 6.1: Land uses in Kariakoo in 1978

Land use	Area (Ha)	%
Planned residential	146	69.9
Unplanned residential	-	-
Industrial (light)	47	22.5
Institutional	16	7.6
Agriculture	-	-
Major open space	-	-
Hazard lands	-	-
Total	**209**	**100**

Source: URT, 1979

Spatially, land use distribution in Kariakoo until 1978 was as Map 6.1 demonstrates.

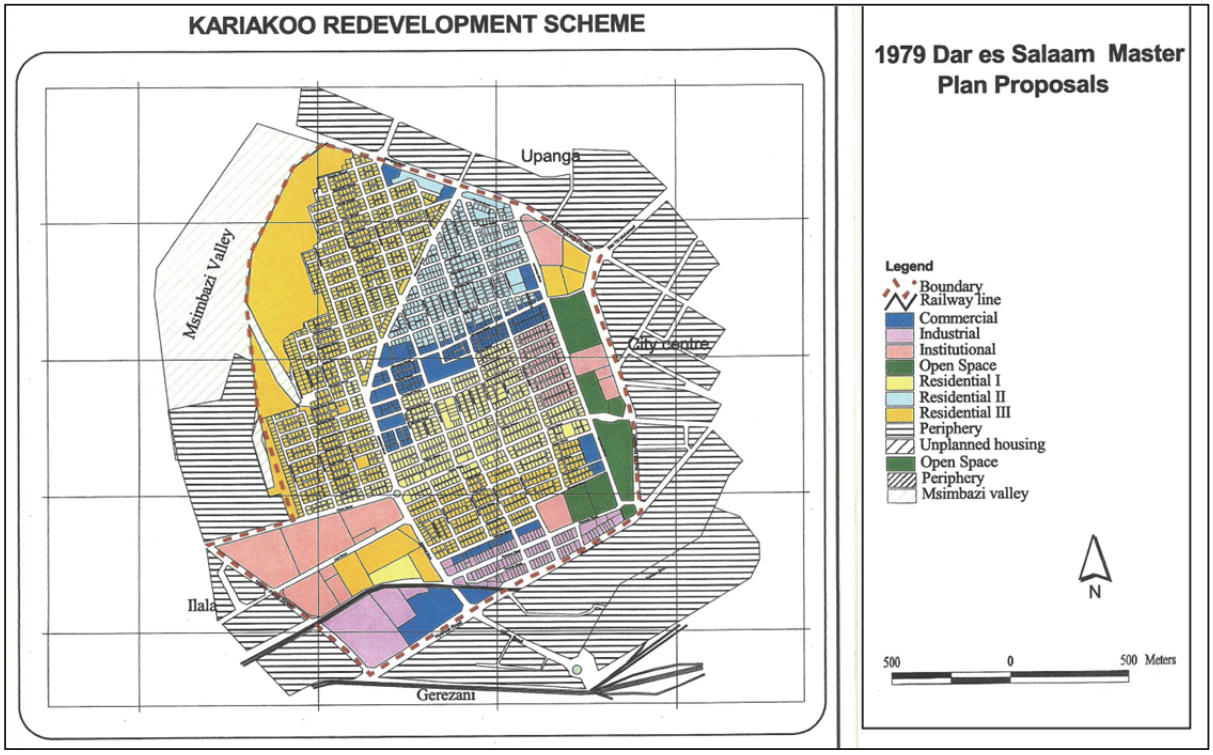
Map 6.1: Land uses in Kariakoo by 1978



Source: URT, 1979: 22

During this time (in 1978), the reality had out-passed the 1968 Dar es Salaam master plan and the first Kariakoo redevelopment plan of 1969 as tools for guiding building development in the area. The decision to prepare a new master plan (in 1978) was sought as a solution, which in turn gave birth to the second Kariakoo redevelopment plan in 1979. This was conceived as a part of the master plan. The master plan recommended new land uses and building standards in diverse areas of the neighbourhood (cf. Map 6.2). For example, Western areas of Msimbazi and areas South of Uhuru Street were designated low-rise single storey residential buildings with a plot ratio of 0.5. Morogoro road, Lumumba, Mkunguni and Msimbazi Streets (named as a super block) were zoned for medium density residential buildings with three storeys and 1.0 plot ratio. However, building height around Kariakoo market increased from five to eight storeys while plot ratio decreased from 2.5 to 1.5. Most importantly, the plan encouraged retail commercial activities within residential buildings. These developments remarkably changed not only the skyscape but also the overall urban-scape of the area. One can also say that these developments together constituted recipe for the intensification of the redevelopment activities that followed in the subsequent years.

Map 6.2: Land uses in Kariakoo (1979-1998)



Source: URT, 2002: 5 and modified by the author

The post-ujamaa and liberal (free market) economic policies era (Mid-1980s)

Intense land use and changes in building height continued to increase during the 1980s; principally because of the support policy environment i.e. the liberal market economic principles which encouraged private investments (Moshi, 2009: 39, 115). Free market such as liberal, social and economic principles held, promoted and encouraged private business and investments. Also the changes brought forth economic growth and increased investments in real estate. With effect from 1985, there were extensive building construction activities in Kariakoo and CBD. It should, however, be noted that from this time until the mid-1990s the slogan "*ruksa*", literally meaning

permission is granted, dominated. This was because; it was under this term when liberal capitalist oriented and economic policies were adopted. Between 1985 and 1995 time, the slogan ruksa marked the turning point in terms of economic and political history of Tanzania. At this period, private business activities boomed as well as investment in land such as real estate developers business. Investments in building activities in Kariakoo like in other areas of the city intensified.

As a result of these policies together with an increased demand for land and housing in Kariakoo area, the MLHHSD through Government Notice (GN) No. 374 declared the CBD and Kariakoo areas redevelopment areas. Subsequently, Kariakoo Redevelopment Plan of 2002 was prepared. During the preparation of the plan in 1999, 22.8% of Kariakoo area was under commercial-residential use followed by 12% for institutions, 10% was for residential and 4.2% for commercial use. The rest of other land use distribution was as shown in Table 6.2.

Table 6.2: Land uses in Kariakoo by 1999

Land use	Area (Ha)	Percentage
Residential	19.8	10
Commercial	8.1	4.2
Commercial-residential	43.5	22.8
Institutional	22.6	12
Industrial	7.1	4
Vacant	3.9	2
Under construction	1.9	1
Parking	0.2	0.1
Recreation	9.3	5
Heritage	1.3	1
Cemetery	0.3	0.2
Unplanned	9.0	4.7
Circulation	63.5	33.0
Total	**190.5**	**100**

Source: URT, 2002: 8

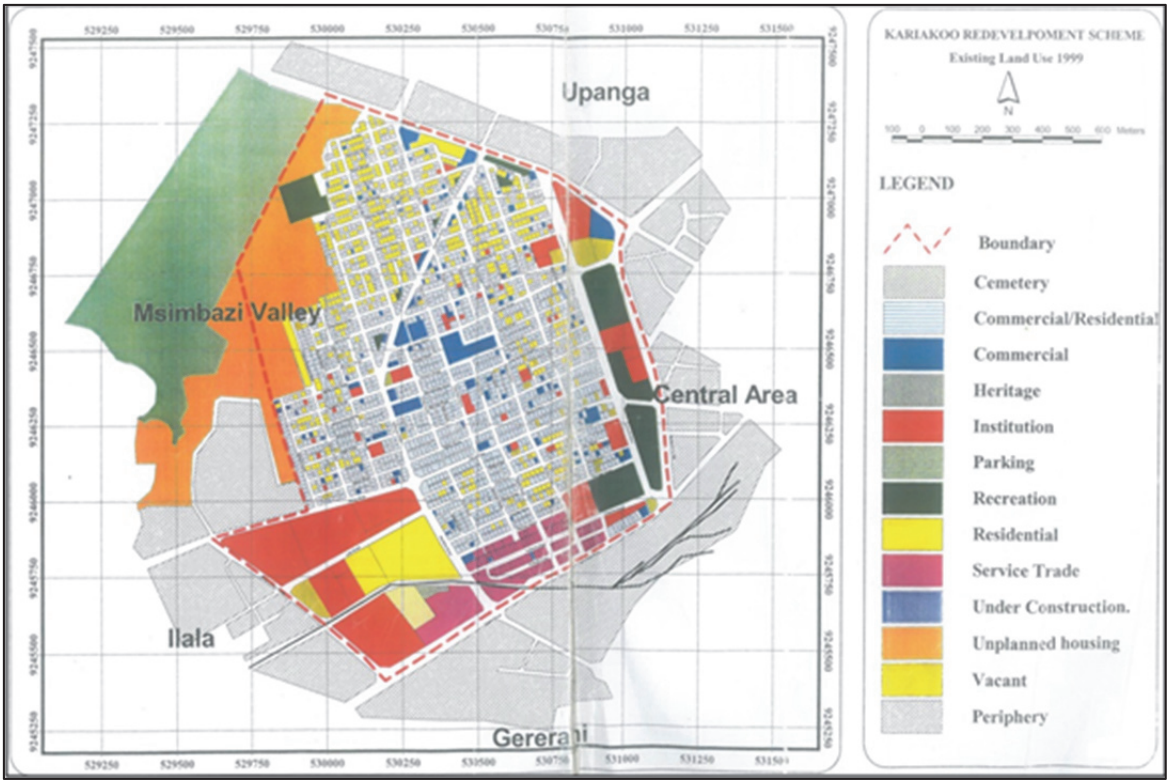
Urban professionals, made almost similar arguments while commenting on the change of the type and use of buildings in the area in the period of mid-1990s:

> *"The speed at which changes of building types and use took place was very high from the mid-1990s just after the introduction of free market principles. Low-rise residential buildings started transforming into high-rise commercial-residential. This trend has continued up to date."*[49]

By 1999 the spatial distribution of the use of buildings, which had already been built as presented in Table 6.2 within specific zones, is presented on Map 6.3. What is apparent on the Map is the spatial dominance of commercial-residential buildings, the diminishing of residential buildings as compared to residential land use in 1978; while commercial buildings were scarcely distributed within Kariakoo area. These facts imply the increasing demand for mixed land use (commercial-residential) than residential use. In another perspective it can be argued that the introduction of neoliberal economic principles, coupled with the location of the area, directed Kariakoo to transform into a commercial centre being dominated by mixed use high-rise buildings. This turned a low-income residential Kariakoo area with traditional single story residential buildings, popularly known as Swahili houses, into a mixed use with high-rise buildings.

[49] Interview with senior Town Planner and HoD, Ilala Municipality, March 13, 2014

Map 6.3: Land use distribution in Kariakoo by 1999



Source: URT, 2002: 8

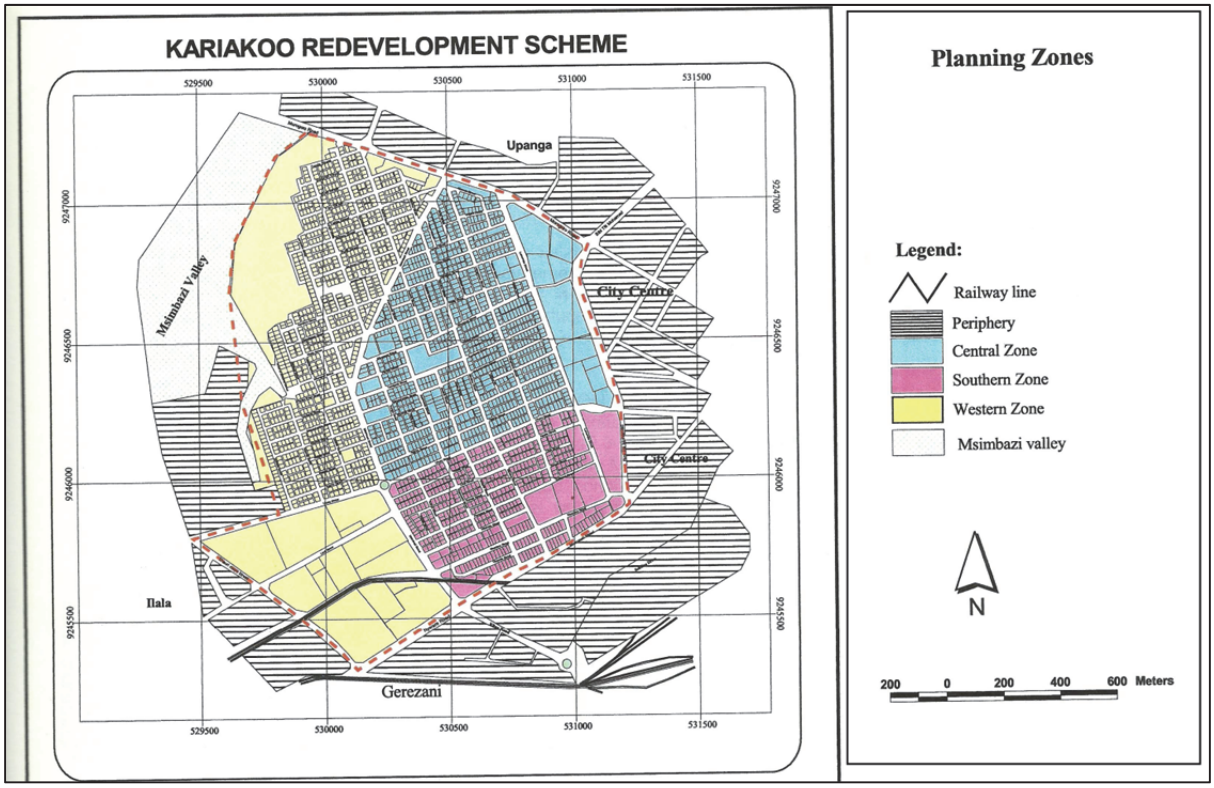
Concerning building heights, buildings with varying heights were designated in three planning zones (zone I – III) according to the prescribed heights in the redevelopment plan. The zones were as illustrated on Map 6.4. In this case, buildings with two to five storeys were provided for in the Western zone (Zone I with 95Ha)[50], while in the Central zone (Zone II that occupied 61Ha)[51] buildings were limited to three to four storeys. In the Southern zone (zone III comprising 34.5Ha)[52] the majority were single storey buildings.

[50] Zone I covered Msimbazi Creek and Shaurimoyo Street to the western part and Nyerere road to the south. Physical surveys indicated that the aera was characterised by a mix of residential, commercial, commercial-residential, public institutions and open spaces. 60% of land use comprised residential and commercial use while institutions included educational, religious and cultural related institutions; pure institutional area was located between Uhuru and Lindi Streets. Moreover, the zone was characterised by a steady transformation of the existing land uses and building structures to more commercial cum residential uses (URT, 2002: 10).

[51] Zone II, bounded by Msimbazi, Uhuru, Bibi Titi Mohamed Streets and Morogoro road, was the most active part with a rich mix of land uses predominately commercial and residential uses while Kariakoo market complex being the focal point and the surrounding plots being dominated by commercial activities (ibid).

[52] It was bounded by Uhuru Street to the North, Msimbazi Street to the West, Nyerere road to the South and Bibi Titi road to the East. It also contained a mix of land use: commercial cum residential, service industrial activities, recreation-Mnazi Mmoja garden and Kidongo chekundu ground; and several institutions-primary schools, government and commercial offices (ibid).

Map 6.4: Planning zones in Kariakoo by 1999



Source: URT, 2002: 11 and modified by the author

The 2002 Kariakoo Redevelopment Plan provided for 22.6% of total land for commercial use than 18.5% for commercial-residential. Table 6.3 shows the other uses proposed in the planning document. In terms of building heights, buildings were limited to seven storeys, except in zone D whose heights were proposed to exceed this limit. The proposals as presented in the Table show therefore that there was a high demand for commercial and commercial-residential housing than for residential as it used to be in the past. As seen from the table, adjustments of land uses established in 1999 were necessary in order to cater for that demand in that particular time. Again, some land uses such as vacant and heritage area were discarded or assigned new uses; while those closely related such as vacant and open spaces were combined to form a single use i.e. recreation and open space. However, this study observed that the Kariakoo redevelopment plan of 2002 largely maintained land uses that existed in 1999 fixed within the zones. Only few modifications in terms of building heights, plot coverage and plot ratios, as Map 6.5 illustrates, were made.

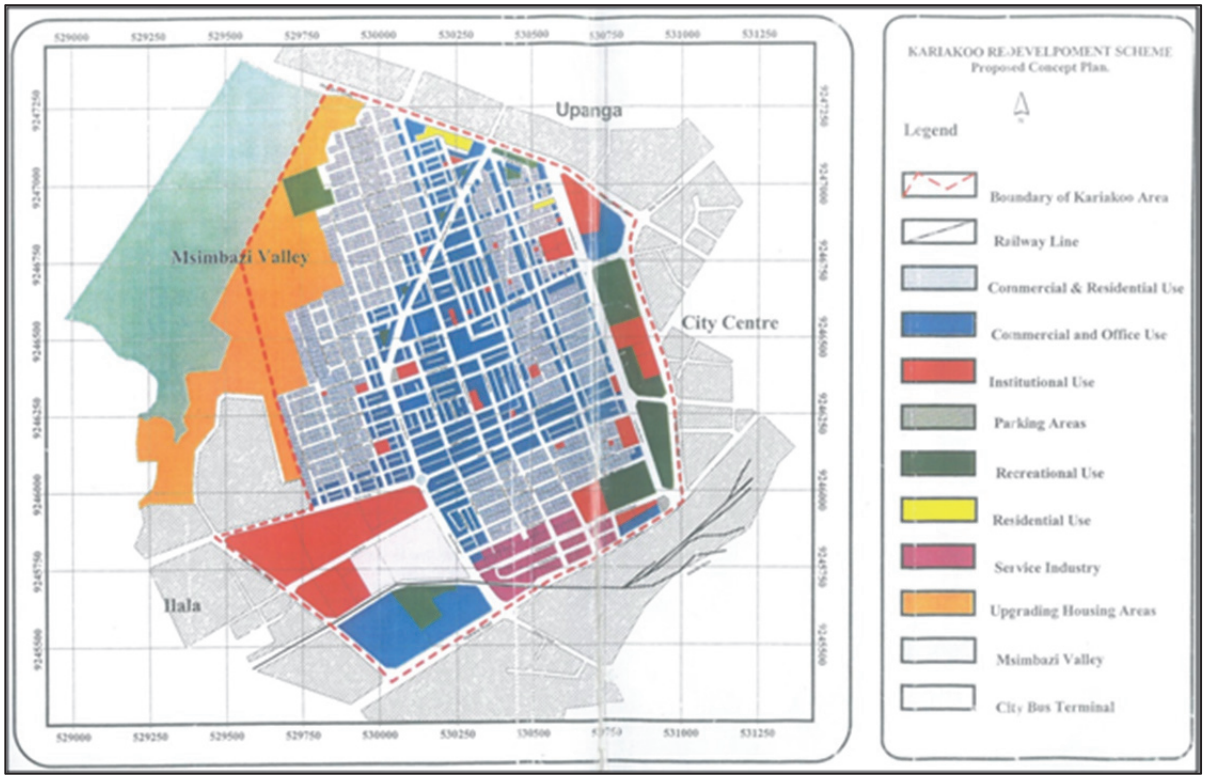
Table 6.3: Proposed land uses in Kariakoo (2002-2012)

Land use	Area	%	Land use	Area	%
Residential	0.7	0.4	Light industry	5	2.6
Commercial	43	22.6	Parking	0.5	0.3
Commercial-residential	35	18.5	Recreation and open spaces	12	6.3
Institutional	19	10	Unplanned	18.3	9.6
			Circulation	57	30
			Total	**190.5**	**100**

Source: URT, 2002: 28

The above proposed land uses as presented in Table 6.3 for the period of ten years (2002-2012), which was the life span of the plan, were spatially distributed in the area in order to meet the objectives of the plan. Explicitly, Map 6.5 shows the location and distribution of the land uses.

Map 6.5: Proposed land uses for Kariakoo (2002-2012)



Source: URT, 2002: 28

What is obvious from the land use distribution after the intensification of conversion of buildings is the constrained public space with respect to the current and future population. As the Tables 6.3 and 6.4; and Maps 6.4 and 6.5 show, land reserved for parking requirement in 1999 was 0.1% of all land uses while open/recreational and cemetery areas accounted for 5% and 0.2% respectively. However, the recommendations of the 2002/2012 redevelopment plan were 0.3% for parking, 6.3% for recreational, and there was no land set aside for burial purposes. Up to this period, only Mnazi Mmoja Grounds which are reserved for government functions have been designated and up kept. In the past, these grounds, which form an Eastern border of Kariakoo, were part of the 'condon satire' – a green buffer zone placed between the African indigenous housing and the Indian city centre areas. As such, it was not a part of Kariakoo. Lack of public recreational open spaces and facilities remains an unsolved problem today. In fact, due to increased resident population in the area, problems associated with lack of recreational open spaces have intensified over the year and are likely to worsen if the status quo continues.

The above discussion on the past land use patterns were not very different from what the Draft Dar es Salaam Master Plan (2012-2032) has revealed. The plan notes that until 2012, Kariakoo was a mixed land use area where commercial-residential use was dominant (URT, 2012: 87, 295). On the other hand, the 2014 fieldwork studies, as captured from interviews with urban professionals and observations, confirm that the current dominant land use in Kariakoo is commercial-residential; primarily with changing rental space (housing) demands. When the

author posed a question to Town Planners to state which land use was more dominant over the others in terms of applications submitted for building consents and permits, the responses revealed that more than 85% of the applications were commercial-residential uses. The analysis of data on on-going and completed building projects from AQRB for the period of 2006-2014 (see Table 6.4) revealed almost similar results. Arising from the table it is apparent that 413 out of 503 building projects, nearly 82%, were commercial-residential. Yet, 54 out of 503 projects (around 11%) were commercial and only 4% were residential buildings. The analysis presented in the table provides further that building projects for religious and institutional uses were the minority.

Table 6.4: Building projects and their uses in Kariakoo (2006-2014)

Year	Building projects and use					
	Commercial-residential	Commercial	Residential	Religious	Institutional	**Total**
2006	43	4	1	1	1	**50**
2007	64	5	2	1	0	**72**
2008	56	5	3	0	3	**67**
2009	47	4	1	0	1	**53**
2010	41	4	2	0	1	**48**
2011	57	6	0	0	4	**67**
2012	62	11	6	0	3	**82**
2013	37	12	4	0	1	**54**
04/2014	6	3	1	0	0	**10**
Total	**413**	**54**	**20**	**2**	**14**	**503**

Source: Field data, 2014

From the Table 6.4, commercial buildings comprise those intended for hotel, shops and godowns; residential buildings embrace residential apartments and hostels while religious encompasses churches, mosques and madrasa. Institutional buildings comprise health facilities e.g. hospitals. Others include banks and office functions.

6.2 Plot characteristics

Kariakoo neighbourhood, designed using the grid iron (chess-board) concept, contains small plot sizes most of them ranging between 250 and 300m^2; very few are below 250m^2 and beyond 300m^2. The mainstream of the plots measure 14 meters wide and 18 or 24 meters long (Kombe, 1995: 98; Lupala, 2002: 103). Kombe further notes that most non-corner plots were within a range of 140 and 240m^2 whereas corner plots measured about 300m^2 (ibid). Under this concept and the size of plots in the development of Kariakoo, there was also an idea to develop the area as a high-density and low-income area with monotype housing, essentially *Swahili house* type. By comparing the existing plot sizes in Kariakoo with the national space standards and regulations of 1997 and 2011 presented in Table 6.5, it can be noted that plots in Kariakoo are far below the national standards. Field results from physical surveys further showed that plot boundaries and sizes have remained the same. Exceptions are in few cases where developers amalgamate plots in order to create enough space for constructing large buildings.

Table 6.5: National space standards for residential plots

Plot type	Plot size per 1997 regulations (m^2)	Plot size per 2011 regulations (m^2)	Actual plot size in the area (m^2)
High density	400-800	300-600	140-300
Medium density	801-1600	601-1200	-
Low density	1601-4000	1201-1600	-

Source: URT, 1997; 2011; Kombe, 1995 and Lupala, 2002

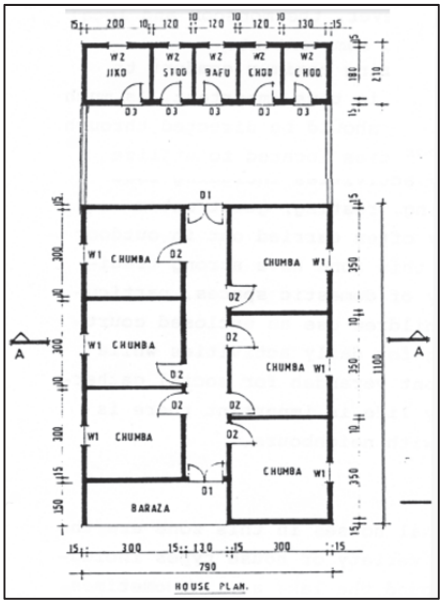
Furthermore, the current urban planning and space standards regulations (2011) provide plot sizes for multi-storey/block of flats. In this case high density plots range from 400-600m^2, medium density plots measure 1,000m^2 while low density plots measure 2,500m^2. Also, by comparing these standards with the actual plot sizes in Kariakoo, it is obvious that plots are smaller than those recommended for multi-storey buildings or block of flats.

6.3 Conversion of dwellings

Morphology of the emerging buildings

It should be noted that since the 1920s, i.e. before redevelopment process started the Swahili house type of six to eight rooms, with a central access corridor, was dominant in the area (cf. Figure 6.1). Also, these houses had fairly small plot coverage. Walling materials were mud and poles, while roofing materials mainly comprised thatch and corrugated iron sheets. Due to increasing demand for housing space, the house layout has changed. Lupala (2002: 106) echoes the foregoing noting that house layouts in Kariakoo are linked to the new demands for office, commercial and residential uses. Land markets i.e. access to building land and the shape of plots including spacious corner plots are another catalysts for the changes in house layouts. He further contends that while plot-by-plot transfer/sale and redevelopment processes inhibit comprehensive design and redevelopment, narrow plots have also limited building designs that are responsive to the hot and humid climatic conditions of Dar es Salaam (ibid).

Figure 6.1: A floor plan and a cluster of Swahili house type



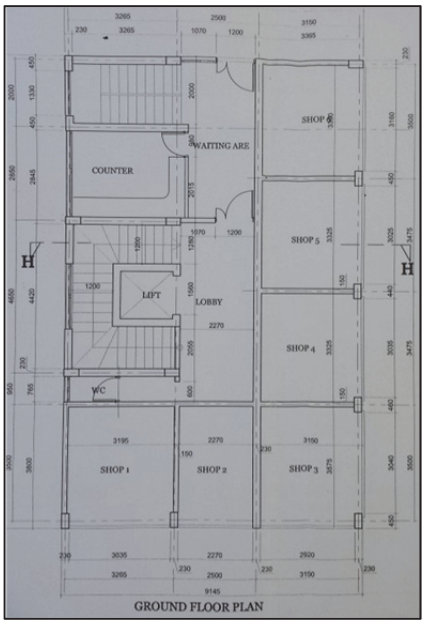
Source: Nguluma, 2003: 28

Source: Midheme, 2007: 39

As noted in chapter five, the Swahili houses are being demolished and substituted by high-rise buildings. In the course of reconstructing high-rise buildings, building materials used are modern: sand cement blocks for walling, corrugated iron sheets and tiles for roofing. The simple house layouts are also being changed to a common double-banked narrow layout due to small width of plots (cf. Figures 6.2 and 6.3). Yet, the layout plan of the new buildings still maintain the traditional Swahili house layout i.e. rooms separated by and accessible from a central corridor. What makes a difference is the number of new spaces introduced and conversion of the main entrance on the frontage into commercial space. Instead, the main entrance is placed on the rear side of the building for corner plots and on the sides for non-corner plots (Figures 6.2 and 6.3). In examining the layouts of the new buildings one observes certain physical design failures. The study revealed drying of washed clothes on the balconies. This reduces the use of balconies as resting areas.

Because of developers' desire to maximise plot (space) use and disregard of building regulations, resulting buildings have poor ventilation and inadequate lighting. Attempts to maximize the use of plot space have obliged households to mechanical cooling devices such as air conditioners. Likewise, users of rooms located on the sides of the buildings are obliged to use electricity even during the daytime (see also Lupala, 2002: 106). It was also clear that the new house layouts, in terms of space organization and use in the ground floor, have the same structure. Non-corner plots accommodate a maximum of three shops on the facades. On the rear sides, a common toilet for ground floor users, a stair-case and sometimes a lift for taller buildings are provided. The main entrances for the upper floors dwellers are often located on the sides. On the other hand, a total of 6-7 shops in an L-fashion are on the frontages of corner plots while a stair case, a lift and a shared toilet are located on the side of the adjacent plot as Figure 6.2 illustrates.

Figure 6.2: A high-rise building floor plan



Source: Fieldwork, 2014

Figure 6.3: A double-banked high-rise building

Source: Michuzi Blog, 2013

In conclusion, the emerging high-rise multi-storey buildings, collectively referred to as "emerging type" in this study, comprise individual formal and functional variations presenting a complex variety of urban morphology.

6.4 Conversion of density

6.4.1 Population and housing density

Housing and population densities have been increasing in Kariakoo due to high rates of migration and natural births. The main pull factors leading to the increase comprise livelihood activities including informal and formal activities. In 1989, the population of Kariakoo was 44,527 with a gross population density of 300 persons per hectare (Lupala, 2002: 112-113). However, these statistics and results represent night densities. The daytime population density, which include many people who visit or shop in the area, is not included. By 2002 the night-time population for Kariakoo was 50,000 people equivalent to 333 persons per hectare; while during the day the population was more than 200,000 people (1,333 persons per hectare).

Current and accurate population data for Kariakoo were not available in official records. But during interviews with professionals it was revealed that the daytime population density of Kariakoo is higher than any neighbourhood in the city. Respondents repeatedly argued that the current daytime population is ten times as much as the recorded 2002 day and night population. This is because of the extensive social and economic activities, including informal businesses, taking place in the area (Figure 6.4). The number decreases during the night when those who do not reside in the area, e.g. casual labourers, business persons and customers, travel back to their homes outside the area (Felbermair, 2012: 81). Based on the estimation that daytime population in 2002 has increased by 10 times, daytime population density for Kariakoo in 2014 was 13,330 people per hectare and 3,378 persons per hectare during the night. Lekule (2012: 55) provides analysis on population densities in Ilala district central area which Kariakoo is part of it. He argues that the nature and concentration of activities in the city centre has caused the district to be overwhelmed with businesspeople and visitors during daytime working hours and virtually empty at night and over the weekends. However, the latter does not apply to Kariakoo as the area is quite more or less fully parked even during weekends particularly on Saturdays. On Sundays, one finds almost half the population of the normal working days.

Figure 6.4: Daytime population and informal activities along Congo and Aggrey Streets

Source: Fieldwork, 2014

Likewise, housing density estimates showed that there were 20 houses per hectare in 1989. During the 1990s when building reconstruction activities started to intensify, the standard gross housing density increased to 24 units per hectare. The recent field results showed that there were 35 dwelling units per hectare in 2014. The rapid increase has, however, been propelled by densification processes including addition of small building structures within built-up plots. From these statistics, it is apparent that the area has attained a higher housing density.

6.4.2 Building lines

Building lines comprise the minimum or maximum distances which must be left between the edges of a plot on all four sides of the building. It is an open area to provide for circulation, cross ventilation, light, infrastructure service provision, outdoor activities and also define the street layout. Every plot typology in Tanzania has its unique setback limits depending on the size. For example, the minimum side and rear/front setbacks for a high density plot are 1.5m and 2.0m respectively (Table 6.6).

Table 6.6: Minimum setbacks for multi-storey/block of flats

Plot typology	Size per 2011 regulations (m^2)	Setbacks (m)		
		Sides	Front	Rear
High density	300-600	1.5	2.0-3.0	2.0
Medium density	601-1200	3.0	3.0	5.0
Low density	1201-1600	4.0	5.0	10.0

Source: URT, 2002 and 2011

As it has been argued before, the majority of house developers struggle to maximize space use with expectations of creating more housing spaces and earn more returns from their investments. As a result, they violate the official building standards including setbacks. Responses from Town Planners as the quotation in section 6.4.3 illustrates affirm this. In addition, results per physical surveys showed that real side setbacks by the majority of developers, particularly private developers, were 1.0m or less (Figure 6.5). In few cases, public and public-private developers did not comply with such building regulations. As a consequence of violating the setbacks, many buildings seem to graze each other; blocking ventilation and light penetration in some of the sides. The practice leads to huge cost implication in terms of energy consumption because the rooms require continuous use of electricity for lighting and cooling purposes. This practice also makes the provision of overhead and underground technical infrastructure services such as water supply pipes difficult because of lack of the requisite space.

Figure 6.5: Encroachment towards boundary lines by private developers in Block 66

Source: Michuzi Blog, 2013 and Fieldwork, 2014

In some cases, the ground floors were built according to the specifications and regulations; but right from the first floor violations started. In this case, typical external building extensions in terms of overhangs were obvious. As such, balconies and other overhanging features like

balconies, window grills, canopies, pitched roof eaves and flat roof overhangs were extended or projected outward beyond the permitted limits. Worse, developers violate the regulations on the level of the slabs of the adjacent buildings in order to create space for balconies on the sides of the buildings. This malpractice creates buildings that are interlocked into each other. The other common malpractice concerns the external placement of window grills far beyond the required standards. Whereas building regulations require a minimum front and rear setbacks of 2.0m, in most cases they were around 1.5m or less on the frontage and 1.0m on the rear sides. National buildings regulations of 2011 and those of 2002 for Kariakoo area require that all projections must be within a minimum distance of 1.5m from the plot boundary on either side. It also requires a minimum of 2.0m on the front and rear sides (Appendix 4a). Resulting from the violation, were congested and narrow streets restraining the rights of other street users such as pedestrians.

6.4.3 Plot coverage

The urban planning and space standards regulations (2011) state the maximum plot coverage to be 70%, 50% and 25% for high, medium and low density plots respectively. On the other hand, the Kariakoo Redevelopment Scheme (2002) states that the maximum plot coverage for commercial-residential land uses in high density plots should be 60% (Table 6.7). Moreover, commercial buildings are required to cover between 66% and 70% of the plot area. The difference between the two emanates from the fact that high density plots according to the 2011 regulations measure 400-600m^2 while in Kariakoo, nearly 99% of most plots are less than 300m^2.

Table 6.7: Plot coverage and plot ratios for Kariakoo area

Land use	Plot coverage (%)	Maximum plot ratio	Minimum plot size (m^2)
Commercial/residential	60	3.6	600
Commercial	66-70	5.3	900

Source: URT, 2002: 33

Results from interview conducted with Town Planners in Ilala Municipality revealed that almost entire plots in Kariakoo were covered by building structures as the quotation substantiates:

> *"If you keenly observe buildings on different plots you will realize that more than 95% and sometimes 100% of the plot space is covered by buildings which also imply excessive building lines. That is why buildings in Kariakoo look like kissing each other."*[53]

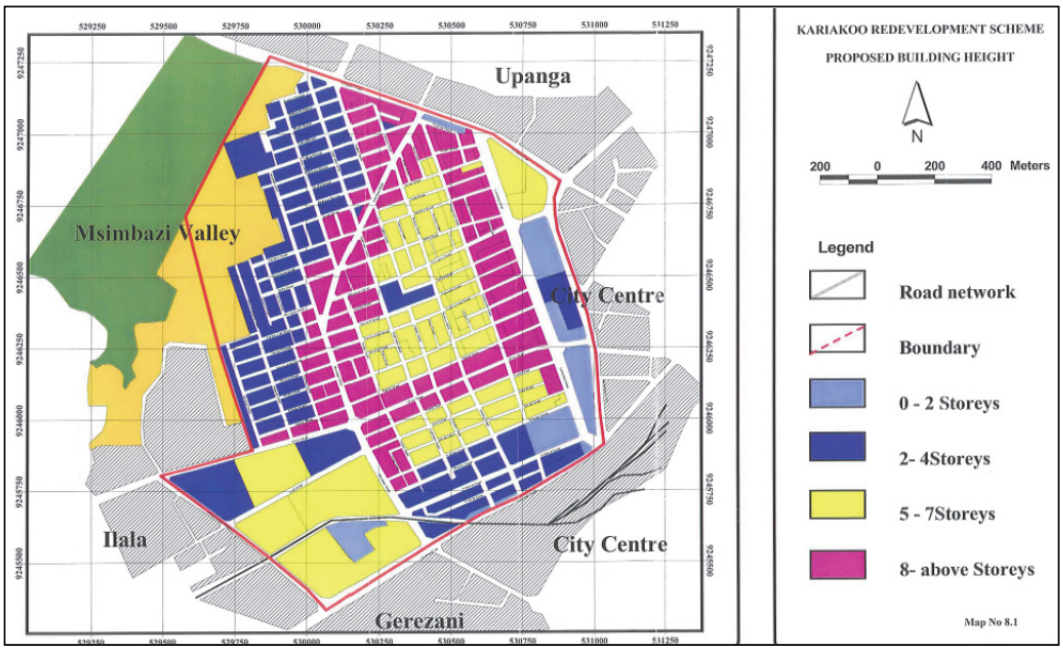
My own observations through physical surveys and calculation confirm this statement. For instance, along Uhuru Street and in other planning blocks such as Block 66 (Figure 6.5) it was found out that the actual plot coverages in most plots were between 83.2% and over 90%. Results from previous researches in the same area have also revealed increasing plot coverages over time. Moshi (2009: 106) reveals that plot coverage for multi-storey building structures, ranging up to five storeys along Uhuru Street, was 57% in 2007 as opposed to 39% of a typical Swahili house. It should, however, be noted that the difference has been so apparent in the course of seven years, a situation which shows that there is increasing pressure on the available building space. This is mainly due to market forces that are related to demand for building space in the area.

[53] Interview with Senior Ilala Municipality Town Planner, May 02, 2014

6.4.4 Number of storeys/building heights

The planning and development concept with respect to building heights for Kariakoo aimed to form a pyramid sky-scape image which could ensure sufficient air circulation and natural light inlet to all parts of buildings in the area (URT, 2002:33). To achieve this, three categories of zones, divided into unique building heights with respect to plot sizes, were proposed. The first comprised low-rise buildings with 0-2 (named as zone A in this work) and 2-4 storeys (zone B). The medium high-rise buildings were to be limited to 5-7 storeys (zone C) while the high-rise building category (zone D) had to contain buildings with more than eight storeys. All the four zones were assigned in designated areas as illustrated in Map 6.6.

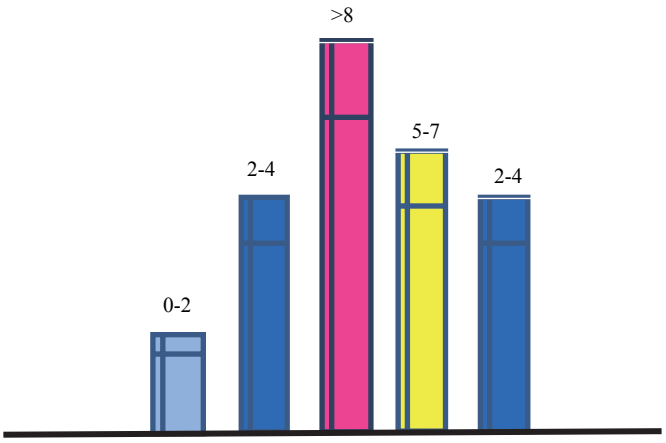
Map 6.6: Proposed number of storeys per zones



Source: URT, 2002: 32

Figure 6.6 below shows the expected skyscape of Kariakoo area in terms of building height.

Figure 6.6: Kariakoo skyscape as per plan ideas



Source: Own illustration from field data, 2014

Results from expert interviews further showed that house developers often exceed the number of the prescribed storeys as per planning consents. The main drivers of non-compliance with regulations recurred as highlighted in the previous sections which include market forces and weak enforcement of development control. During interviews with urban professionals, a senior Town Planner uttered:

> *"I was going through a file with an application for a building permit on plot number 15 along Mkunguni Street to check if the architectural drawings concur with the regulations. I have seen that the developer applies for a seven storey building while the regulations allow only 2-4 storeys, and hence he is out of the regulations. This is just because the developer wants to produce more space due to the high demand for housing in the area."*[54]

From this quote, one can observe that despite the fact that building developers are granted planning consents, they do not take this seriously in the course of preparing architectural drawings which are submitted later during the application of building permits. Planning consents specify building conditions including the number of allowable floors. This is a sign of negligence on part of builders and apathy or weakness in enforcing the rule of law among planning authorities. In other words, this shows that developers ignore regulations and standards believing that technocrats will not note such anomalies during the approval of building permits. This may also suggest that some developers bank on lubricating the palm of those involved in the approval and issuance of building permits.

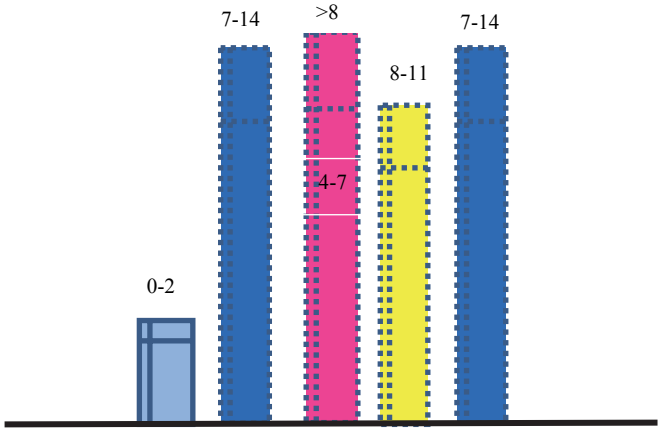
Results from physical surveys postulated that only zone C, designated to accommodate more than eight storeys, had the right number of storeys as stated in the Kariakoo redevelopment scheme (2002). In this zone the tallest building, a property of S Investments Limited, located in Block A, Plots 34 and 35 along Uhuru/Muheza Street had 17 storeys. However, this does not mean that all buildings in this zone had more than eight storeys; other several buildings were 4-7 storeys. More examples exhibiting this trend can be randomly observed along Msimbazi and Uhuru Streets. Buildings in other zones also exceeded the set limits. For instance, in a zone designated for 2-4 storeys, buildings with 11-14 storeys were observed. In this zone, buildings in Block 71, Plot 8 along Pemba Street and in Block 70, Plot 15 along Livingstone Street had 12 and 11 storeys respectively. Another SS building structure with seven storeys was noted in Block M, Plot 105 along Jangwani/Rufiji Street; and another in Block L, Plot 61 along Congo/Muhoro Street was 14 storeys. Similarly, in the zone which ought to accommodate 5-7 storeys, buildings with 8-11 storeys were built; and where the plan recommended more than eight storeys, some buildings were 4-7 storeys. Evidences include K Apartments Limited building with 11 storeys in Block 52, Plot 27 at Somali Street and A Investments Limited 9 storeys building in Block 66, Plot 7 along Ungoni Street.

The tendency to build beyond allowable heights has adverse impact on the physical form of the buildings as well as on the prescribed functionality of the areas including streetscape. For example, as a result of violating building height and coverage regulations or constructing buildings which meet developers' interests as the Kariakoo case has shown, one creates dysfunctional areas. These are also problems associated with threat to public safety due to disregard of escape staircases in case of fire. A combination of these ultimately makes the widths

[54] Interview with Senior Ilala Municipality Town Planner, May 02, 2014

of the streets narrower and dark. This contradicts the principle that the minimum width of the street is ought to be equal to the height of the tallest building along the street. Moreover, the pyramid sky-scape image which was envisaged in the plan has not been respected because of disregard of the plan by developers. As a result, the resulting urban-scape image comprise sporadic multiple of pyramids without coherent skyscape (cf. Figure 6.7).

Figure 6.7: Actual building skyscape in Kariakoo



Source: Own illustration from field data, 2014

6.4.5 Floor area ratios (FARs)

The foregoing discussion on plot coverage has revealed that the majority of the developers exceeded the proposed standards for plot coverage as well as building heights. This automatically means that they have also surpassed the recommended standards for floor area ratios. Commenting on this, a Town Planner at Ilala Municipal Council with reference to Kariakoo claimed:

> *"Only 30% of all buildings in Kariakoo adhere to floor area ratio standards. The rest have FARs ranging between 6.0 and 9.0. Some of the indicators for the anomaly include the number of storeys which exceed the prescribed limits and the apparent over-use of plot spaces in terms of setbacks and coverage."*[55]

With reference to Figures 6.3 and 6.5; the author, from calculations using a common standard plot size of 250m^2 for the majority of plots in Kariakoo, found that floor area ratios for the five, eight and 12 storey commercial-residential buildings were 4.16, 6.66 and 9.98 respectively. These figures are beyond the 3.6 floor area ratio prescribed in the regulations. Comparing these results with the floor area ratio of 0.39 for a typical Swahili house and that of 2.3 of a five storey building as observed by Moshi (2009) in 2007, it is evident that there are remarkable changes or non-compliances which have adverse effects.

When developers were asked to comment on the excessive building standards that have been frequently reported and as the researcher observed, they pointed a finger at contractors who were employed to undertake construction activities. More radical and critical opinions were expressed by one of the developers as the following quote impressively indicates:

[55] Interviews with Senior Town Planner - Ilala Municipality, April 04, 2014

"Architects and civil engineers prepared technical drawings and they were approved by the Municipality. During building construction I employed a contractor and I gave him the approved drawings which specified the allowable standards. Where do you find me in that saga? Go and ask the contractor."[56]

In contrast, building contractors denied the claim of developers on them by arguing that they built according to what developers required.

"They (developers) tell us what we should do so that they realize their dreams. Sometimes that is what we do because they are our bosses and we are just employed…. We seek to realize our daily bread and the basic needs for our families."[57]

It is sufficient to argue that developers are lax in respecting laws and order or abiding by the approved plans by urban authorities. One of the urban professionals, responding to this concern stressed:

"There is a challenge of not complying with urban development standards and regulations by developers. For example, in 2006 the Prime Minister[58] *established a commission to investigate on the construction of high-rise buildings in Kariakoo where several buildings were related to collapse cases resulting into loss of peoples' lives and property. The report of the commission revealed that 85% of housing projects did not adhere to regulations and standards and hence, technically they were supposed to be demolished. The high proportion shows that developers aim to maximize space at the expense of disregarding public requirements. However, theoretically building construction regulations which are also included in approved building consents, permits and architectural drawings remain on the papers but actual developments are quite different."*[59]

Two lessons can be drawn here. It shows vividly that urban land use development control is weak and ineffective. Secondly, the unregulated densification and the adverse impacts are critical problems unless regular urban development control measures will be instituted.

6.5 Neighbourhood morphology and spatial qualities

6.5.1 Street layouts

As noted earlier, the 1920s grid iron planning and design concept regularly aligned the single detached traditional buildings and streets in a linear form particularly the frontages. Later on in the late 1960s, a collection of superblocks – neighbourhood units in a grid format – was introduced to accommodate the increasing land and housing demand. Increased building heights continued in the 1980s. In this point in time, the increased building heights were primarily fuelled by the adoption of the neo-liberal economic policies which also encouraged private investments in all sectors of the economy including real estate development. Today, the area is spatially organized by 5-17 storey high-rise buildings streetscape (Figure 6.8). These emerging buildings

[56] Interview with K Apartments Real Estate Developers, Kariakoo area, April 28, 2014
[57] Interview with Y contractors, Kariakoo area, April 30, 2014
[58] Nominated as the Prime Minister on 29 December 2005 and resigned on 7 February 2008 following a report by the Parliamentary Committee which implicated him in the emergency power generation contract between TANESCO, a public corporation, and Richmond Development Company LLC of Houston. Texas, a USA Company
[59] Interviews with Senior Land Officer - Ilala Municipality, April 04, 2014

consist of detached apartment style in irregular grid iron patterns with tall buildings, narrow and diminishing origin street layout. This is due to the fact that developers do not conform to building regulations for the sake of maximizing habitable or usable space at the cost of compromising the prescribed building regulations. Likewise, in areas where gentrification activities have not intensified, streets were narrow and congested as a result of horizontal building extensions. This shows that buildings and population densities are also much higher than the proposed levels.

Figure 6.8: Diminishing building lines and narrow street scene

Source: Fieldwork, 2014

Figure 6.8 shows how housing redevelopment processes have deformed the initial urban structure especially the streetscape. As seen from the figure and rightly observed by Hillier (1999), deformation occurs in two ways. Firstly, the shaping and alignment of building lines (urban blocks) do not continue right through the grid from one side to the other. But continually strike the surface of the building blocks. Secondly, the street width varies along the same street. This affects visual permeability which is an important influence on movement.

6.5.2 Traffic movement and parking

Concerning traffic movement in the area, the focus was on motorised and non-motorised traffic along the main distributor and access roads. What was commonly observed is the fact that both roads lacked traffic separation grades particularly pedestrians' walkways and people with special needs such as people with disabilities. Some roads especially distributor roads had incoherent or discontinuous walkways (also see Mosha and Mosha, 2012: 236). This leads to a mixed land use on the limited available space. During peak hours (mornings, mid-days and evenings) distributor roads such as Uhuru, Msimbazi and Lumumba experienced high traffic mixture and prolonged vehicular congestions. Along these streets movement of people and vehicles from residential neighbourhoods to working places in the morning and back to their residences in the evening was spectacular.

Along the prime commercial streets i.e. areas bordered by the major distributor roads of Uhuru, Msimbazi, Lumumba and Morogoro, one notes high levels of mixed traffic almost all the daytime than other feeder roads. This is because along these areas, activities such as shopping, selling of domestic and construction materials and retail and wholesale outlets, have increased.

Thence, shoppers' and shopkeepers' cars, taxis, goods delivery trucks, pulled/pushed carts and pedestrians all scramble to use the limited space (cf. Figure 6.9).

Figure 6.9: Chaotic motorised, non-motorised and informal business at Aggrey and Uhuru Streets

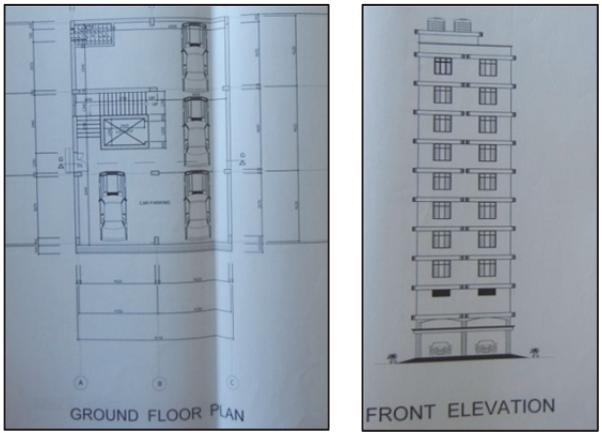
Source: Fieldwork, 2014

In some cases, pedestrians' walkways particularly those under shopping arcades intended to provide protection against scotching sun and rain have been interrupted and closed by developers to create space for small business activities or car parking as shown by Figure 6.9. This means that there is a competition among vehicles, pedestrians and informal business activities for this narrow carriage ways which were designated for other functions. The same scenario was observed by Mosha and Mosha (2012: 236). The level of traffic mixture, congestion and competition on existing streets become more flexible as one enters the medium commercial streets (mainly located beyond Uhuru Street in the Southern part of the area) and almost diminishing in the tertiary commercial streets (located beyond Msimbazi Street on the far Western side as well as on the Southern part of the area). Along these streets, single storey Swahili buildings used for both residential and small-scale commercial activities were still dominant.

Owing to the narrow streets resulting from violating building regulations and lack of parking spaces, vehicles are parked on the streets or just besides the roads. On-street and road-side parking denies pedestrians and other non-motorised users, including pulled or pushed hand carts (*maguta* or *mikokoteni*), from using such non-motorized spaces. At present, Kidongo Chekundu ground on the South-Eastern part is the only public parking space close to this shopping area. In appreciation of the increasing traffic density, narrow streets and lack of parking space within the area, the Kariakoo Redevelopment Scheme (2002) required that parking lots be provided in each building (URT, 2002: 45). In this respect, it was however observed that plots were entirely built up without space reserved for parking. Municipal Planners confessed that during the design and approval of most building structure plans, parking lots are included in the drawings (Figure 6.10), but excluded during the construction stage. Most parking spaces are converted into commercial or offices spaces. [60]

[60] See also http://www.pesatimes.co.tz/news/governance/kariakoo-buildings-violated-permits/ and http://www.thecitizen.co.tz/News/Kariakoo-multi-storey-buildings-a-time-bomb/-/1840392/2069604/-/p1lntyz/-/index.html

Figure 6.10: Building designs for Plot no.18, Block A at Aggrey Street but not implemented



Source: Field data, 2014

6.5.3 Protection and security

Safety and protection against theft and robbery particularly in the prime commercial streets as Figure 6.4 illustrates are not guaranteed. This is because of population congestion, concentration and competition for space by formal and informal activities along the streets. Responses from urban experts and pedestrians showed that petty theft and other criminal offences are common in the area. They include personal properties such as ear rings, hand bags, cell phones and wallets (for men) by unruly street boys as a female pedestrian expressed in the quotation below:

> *"I always feel insecure and unprotected as I walk along Kariakoo streets because of the recurring theft and robbery cases partly caused by high daily population density, concentration of activities and jobless street gangs. In the last three weeks or so, my neighbour's golden ear rings were taken while the lower part of the left ear was torn. This happened when she was walking along the crowded streets."*[61]

Felbermair (2012: 112) on women business operators in Kariakoo rightly observes that they expressed the feelings of being unprotected and insecure as they operate in crowded spaces. Also, many informal business operators (*machinga*) feel insecure because their merchandise, particularly second hand clothes and newspapers, were displayed on small spaces often on the ground or low-raised wooden stands. Such stands could not restrict people from trespassing.[62] Moreover, due to traffic congestion on roads, safety of pedestrians is generally poor.

In summary, it is apparent that developers' violation of building standards and regulations seems to compromise movement, safety and security not only to personal properties. Rather, the situation is more threatening during disasters such as fire outbreak due to lack of fire escape stairs.

6.5.4 Waste management system

Solomon (2011: 37) observes that the main solid waste generators in Dar es Salaam city are households (2,768 tons/day), market areas (140 tons/day) and commercial activities (128 tons/day). At city and residential neighbourhood levels, these findings are valid but they may not be valid in some areas were commercial activities dominate. For instance, this study revealed that

[61] Interview with female Pedestrian, Congo Street, April 10, 2014
[62] Interview with informal business operator IB, Congo Street, April 10, 2014

solid waste in Kariakoo is generated mainly from commercial activities (shops and street vendors) followed by households i.e. residential apartments. Although no statistics were available for Kariakoo area, interviews and observations provided important ideas on this. Responses from business operators asserted that the bulk of solid wastes in the area per day are generated from commercial activities particularly during the daytime. Through observations, heaps of piled-up garbage, mainly composing empty bottles, paper and plastic materials, were witnessed along the streets. Such waste materials implied that they were generated by formal and informal business operators during the daytime (cf. Figure 6.11). On top of the heaps, little domestic garbage in small plastic bags existed suggesting that they were damped during the night time. On-street waste damping on undesignated areas along the street and without collection containers also implied lack of waste collection points.

Figure 6.11: Waste disposal and car parking along Amani Street

Source: Fieldwork, 2014

Regarding waste management, the study observed that the responsible authority, Dar es Salaam City Council (DCC) and the contractor, had no routine procedures for collecting and damping wastes. As such, employees of the companies responsible for collecting car parking charges were also responsible to remove wastes from designated parking lots to make them free for their customers. Nonetheless, this was done without specialized gears and in other cases; cars were parked on the heaps of garbage (see Figure 6.11). This may lead to health problems not only to the haulers but also to the community at large. From another perspective, it can be argued that the frequency of collection does not match the amount of wastes generated on daily basis. The contractor seems unable to deliver the required service. One may also argue that the City Authority does not seem to be effective in managing solid waste collection in the area. Commenting on this, a businessman along Narung'ombe Street claimed that:

> *"The City Council [Dar es Salaam City Council] acts irresponsibly despite collecting a minimum of TZS 15,000 (US$ 9.4) on monthly basis from every businessman as garbage collection fee. It has contracted the job to a contractor who does not collect garbage according to the provided plan. Look how the two days garbage has piled-up there!"*[63]

On liquid waste management in the area, only few households were connected to the central sewer system. This system is, however, unreliable and inefficient because of the population

[63] Interview with Tenant and shop businessman K, Narung'ombe Street, May 07, 2014

pressure on the facility. The other reason is lack of maintenance or improvement to match the rapidly increasing population. In reality, the majority of households relied on on-site disposal system which cannot meet the current demand. As such, waste water overflows on the streets were common in the settlement. In some areas plastic bottles were used to dispose urine. These were often damped together with solid wastes particularly during the night. Lack of public toilets and closure of few available private paid toilets during night time were the major causes of this problem. Moreover, storm water logging particularly during the rainy season, due to lack or blockage of storm water drainage channels, constitutes a serious problem in the settlement.

6.6 Summary of major findings

The assumption that high demand for housing space would drive developers to maximize living and commercial space production to generate more revenue/income was confirmed valid. Over time and space, land use has totally shifted from residential to commercial-residential and slightly deviating from the plan proposals. Results have shown that change of land use started to be notable in 1998. By 1999, 23% of Kariakoo land was used for commercial cum residential against 10% for residential use. Although the Kariakoo redevelopment plan (2006-2012) designated 22.6% for commercial than 18.5% for commercial-residential, study results showed that commercial-residential buildings comprised 82% as compared to 11% for commercial buildings.

Plot size and configuration have generally remained the same except in few cases where two plots are combined to accommodate huge building projects. Within individual plots, one finds buildings with different external morphology (high-rise) unlike the former Swahili type or 2-3 storey buildings. Also changes are notable on building materials from traditional to modern. The study, however, has established that due to narrow plots in the area, the internal configuration of buildings has remained almost the same (double-banked layout).

The transformation of the area from a residential to a commercial hub as well as the on-going building transformation processes have also led to high densities. On the case of population density, the area accommodated 300 people per hectare in 1989. By 2014, the number stood at 13,330 people per hectare. Similarly, as majority of developers do not abide by the regulations and standards, high spatial densities have been attained. Records show that one hectare accommodated 20 dwellings in 1989; but till 2014, there were 35 dwellings in one hectare. The same trend has prevailed on plot coverage, number of storeys, floor area ratios and the general street configuration. The study found out developers attaining between 83% and over 90% plot coverages vis-a-vis the permitted 60%-70%. While in zones designated to accommodate buildings with not more than seven storeys, newly constructed high-rise buildings had up to 14 storeys. Floor area ratios ranged between four and ten against the recommended 3.6. These results imply that housing development is by far outside regulations and there is an ineffective urban development control from Ilala Municipality.

Owing to such violations, the resulting buildings look thin, tall and unpleasant creating narrow streets and dark alleys even during the daytime. While tall buildings create narrow streets which compromise movement, protection and safety; excessive site setbacks and maximum plot coverages inhibit light and air movements in rooms located on the sides of the buildings. Users are, therefore, forced to use artificial devices. Moreover, the quality of streets is unpleasant because of poor solid and liquid waste management by contractors and the DCC.

The results also suggest that housing development outside regulations is also geared by weak urban development control by respective local authorities and therefore seems to be a deliberation move.

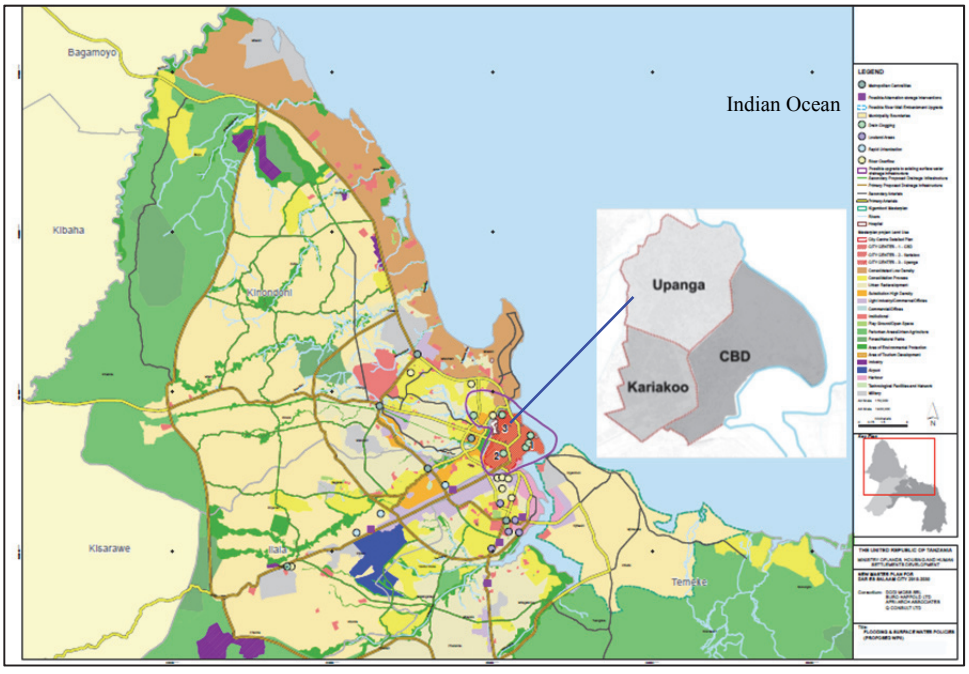
7 HOUSING MARKET AND ACTORS IN UPANGA

In this chapter, I discuss the housing market environment in Upanga. The first part discusses how housing units are produced and supplied. The main themes discussed include ways of producing and supplying housing units, types of developers, their motivations for engaging in real estate investment, and access to land and finance. Moreover, it includes the quantity and quality of units produced, prices and rents, and how information flows from producers to customers. The second part highlights very briefly the main customers which developers or investors target at as the main consumers of the units being produced. However, before discussing the empirical findings on housing market, I begin with highlighting the locational, establishment and connectivity contexts of Upanga.

7.1 Location, establishment and connectivity

Upanga settlement is located in the prime areas of Ilala Municipality and borders the CBD on the Eastern part (Figure 7.1). Kariakoo area and Kinondoni Municipality form the Southern and Western borders. The study area covers 340.6ha and consists of two wards (Upanga East and West) with a total population of 25,643 in 2012. Upanga West accommodates 13,476 people while the population of Upanga East is 11,167 (NBS, 2013: 76).

Figure 7.1: Location and connectivity of Upanga Settlement



Source: URT, 2013

The settlement was established in 1857 as a small fishing village by Sultan Majid of Zanzibar and later it was transformed into a prominent residential area (URT, 2006: 3). Upon the death of Sultan Majid in 1870, the new Sultan Barghash-Majid's brother, left Upanga settlement to decay as he pursued more direct conflicts with recalcitrant merchants, *majumbe*[64], and brigands in and around Bagamoyo (Brennan and Burton, 2007: 18). Full control over and vitality of the

[64] In plural; singular form - *jumbe*. He was a politically elected local chief at a grassroots level (ten cell unit).

settlement were restored after the arrival of the German colonialists in 1890. In 1899 the settlement became an Indian residential quarter (Zone II) in which the Indian bazaar and two market halls stood out as the focal point of local business (Brennan and Burton, 2007: 28).

In 1919 when the British took over Tanganyika, they retained Upanga as a centre for accommodating colonial administrators of the Tanganyika territory (URT, 2006: 3). Following the 1924 amendments of the Township Rules, Dar es Salaam was split into three zones broadly reflecting the pre-existing social geography of the City (Brennan and Burton, 2007: 31). Until 1924, the settlement was still a residential cum commercial area for Indians, but at this particular time the bazaars, which provided both residential and commercial quarters, were congested (ibid: 31). As a response to the overcrowding conditions in the bazaars, Upanga experienced rapid Indian housing development from the early 1950s through a land pooling programme in the late 1950s (Brennan et al., 2007: 45). As a result of the programme, about 1,000 titled plots were pooled and approximately 77% of the recipients were Asians who acquired land from natives with or without assistance from the colonial government (Owens, 2012: 11).

Since 1961, the development of Upanga has passed through periods of relative rapid growth and consolidation. In 1962 a year after independence, 400 more plots were added in areas originally planned for communal uses and later on to a greater extent allocated to prominent Africans including government senior officials (URT, 2006: 3; Owens, 2012: 11). From 1967 to 1973 there was a rapid growth of population in the area, accompanied by construction of residential buildings and an increase in commercial activities. In order to inter alia ease the impact of high population growth of Dar es Salaam and place the capital city on centrally located area for ease accessibility, in 1973 the government decided to shift the government headquarters from Dar es Salaam to Dodoma. The expectations were that government ministries could move from Dar es Salaam to Dodoma (URT, 2006: 3). However, this has not been the case to date.

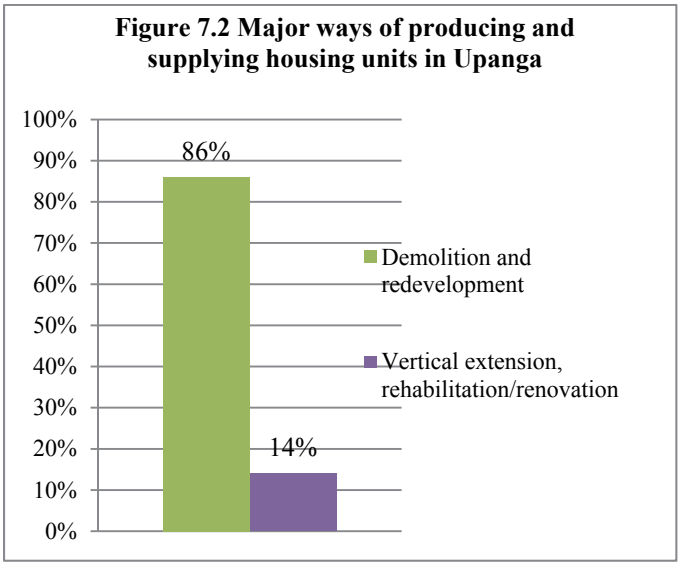
Until the period when the Upanga Redevelopment Plan (2006) was prepared, it was evident that the settlement was still a prominent residential area for many government senior officials, a centre for government functions, public services, and a potential area for city densification (ibid). Being located closer to the CBD, Kariakoo, Oysterbay/Masaki and other inner-city neighbourhoods and with average public services, the area is expected to continue attracting a significant proportion of functions and uses.

In terms of connectivity, the settlement is well connected to other areas of the city through arterial roads with a total length of 6.58km which form the boundaries of the neighbourhood (URT, 2006: 24). It also has a number of collector roads (11.27km) and several access roads (6.36km). Although most of these roads are in poor conditions due to lack of regular and timely maintenance, they still distribute and provide traffic access to different uses such as homes, working places, recreation and religious centres within the settlement. The four arterial roads also connect the neighbourhood with a wide range of other sub-centres. For example, Morogoro road connects Upanga with the CBD, Kariakoo, Kigamboni, Magomeni, Manzese, Ubungo, Kimara, Mbezi Luis, Kibamba and Kibaha Township in Coast region. Accessibility to the CBD, Oysterbay, Morocco, Mikocheni, Kijitonyama, Mwenge, other sub-centres along it and Bagamoyo town is facilitated by Ally Hassan Mwinyi Road. Bibi Titi and United Nations Roads connect Upanga with Kariakoo and other sub-centres along Kilwa, Nyerere and Uhuru Roads.

7.2 Housing production/supply systems

Unlike Kariakoo whereby a number of ways of producing and supplying housing exist, in Upanga housing is largely produced through two major ways as per data from AQRB: demolition and redevelopment; and vertical extension, renovation or rehabilitation. The other unrecorded way is infill development. Results from data on registered housing projects over a period of eight years i.e. from 2006 to April 2014 provided evidence that the majority of projects in Upanga involved demolition of the former two to three storey buildings and redevelopment of high-rise multi-storey buildings. Few housing units produced were a result of either vertical extension, rehabilitation, renovation or both (cf. Figure 7.2 and Table 7.1). Interviews with Town Planners at Ilala Municipality and field observations reveal that besides the aforementioned housing production and supply means from registered housing projects, infill development also substantially added some housing units to the existing housing stock in the area. However, its contribution in percentage was difficult to estimate in this study because no official data was available on that aspect and the author, constrained with time, could not carry out a quick survey to establish quantities.

Figure 7.2 Major ways of producing and supplying housing units in Upanga



Source: Field data, 2014

7.2.1 Demolition and redevelopment

Upanga, the former affluent Asian suburb was a community whose building profile comprised largely two to three storey residential units. According to the 2004 survey, the form and physical conditions of most buildings were generally good. That is, 697 out of 1,081 buildings (nearly 65%) were in good condition, 33% in average condition and only 2% were dilapidated and hence needed immediate replacement (URT, 2006: 15). It was further revealed that most of the residential buildings accommodated small-scale commercial activities such as retail and food outlet sheds (kiosks). The kiosks were however, haphazardly erected on pedestrian pavements and virtually on available public spaces. Also, there were few high-rise buildings having replaced the original buildings as a strategy and response to the increasing housing demand for residential and commercial-residential uses in the area.

Findings from this study showed that 86% of housing projects carried out in Upanga are a result of pulling down the former two to three storey privately or publicly owned buildings and replacing them with high-rise buildings (cf. Table 7.1). As such, tall buildings of up to 25 storeys

have been built in the settlement, each building capable of producing more than 30 apartments as Figure 7.3 shows. Pattaroni et al. (2012: 1239), on the dynamics of gentrification in the Île-de-France region, name this process as "demolition of deteriorating environment" followed up by subsequent large-scale reconstruction of the neighbourhood. They describe it as a real estate-driven gentrification dynamics, analogous to what Davidson and Lees (2005) term "new-build gentrification". The majority of new high-rise buildings in Upanga serve both single and dual purposes normally residential and residential-cum-commercial uses. Very few provide commercial spaces only. As a norm, commercial or office spaces are mainly located in the ground and at times in second floors, whereas residential apartments are often in the upper floors. It should also be noted that commercial activities established in this area are large-scale mainly owned by private individuals or jointly by private and public institutions such as NHC. Other major uses include for example, supermarkets and restaurants whose consumers are mainly affluent people (cf. Figure 7.3). Likewise, provides that property ownership in the area is largely private (64.2%), parastatal organizations (30.7%) and public agencies by 5.1% mainly by NHC (URT (2006: 18).

Figure 7.3: U building and a restaurant in V towers along Ally Hassan Mwinyi Road

Source: Field work, 2014

As demolition and redevelopment is the main housing production and supply system, the majority of new high-rise buildings with different architectural form and image dominate along the major arterial roads such as UN, Morogoro and Ally Hassan Mwinyi. Besides the profiles along these roads, Mindu and Kalenga streets, located closer to Muhimbili National Hospital (MNH), have increasing volume of completed and on-going housing construction projects. In the inner streets, i.e. along Ally Khan Road, the skyscape is apparent. In other words, these areas are experiencing rapid changes in terms of land use, density and high-rise buildings than other areas within the settlement.

7.2.2 Vertical extension, renovation/rehabilitation

In the past, housing supply through vertical extension was not common in Upanga since only two to three storeys residential buildings existed. Starting from mid-2000s when housing demand intensified and economic conditions improved or housing demand increased, owners started to add some floors on top of built floors. Unlike in Kariakoo whereby only ground floors were built, occupied and used for commercial activities while other floors were progressively built, in

Upanga often all floors were added on top of the existing ground floors without a break. This suggests that developers in Upanga had more access to available financial options or were better-off than their counter parts in Kariakoo. Analysis of housing projects data for this area as represented in Table 7.1 reveal that only 13 out of 93 projects (14%) carried out in the settlement over a period of eight years (2006-2014) involved either vertical extension or renovation and rehabilitation. For instance, in 2009 only one out of seven projects which were on-going involved vertical extension and as a matter of fact, the project was for institutional use. The rest, 80 out of 93 building projects (86%) produced and supplied housing units to the market through demolition and redevelopment as discussed in section 7.2.1. In some cases, house owners renovated or refurbished their buildings in order to lease them out, while they relocate to intermediate residential areas. This practice was reported to have been common in the 400 plots which were added for communal uses and later on allocated to prominent Africans in 1962.

Table 7.1: Housing production/supply systems in Upanga (2006-2014)

Year	Demolition and redevelopment	Vertical extension/renovation	Total
2006	3	2	5
2007	7	0	7
2008	9	2	11
2009	6	1	7
2010	10	2	12
2011	16	1	17
2012	17	3	20
2013	9	1	10
2014	3	1	4
Total	**80**	**13**	**93**

Source: Field data, 2014

7.2.3 Infill development

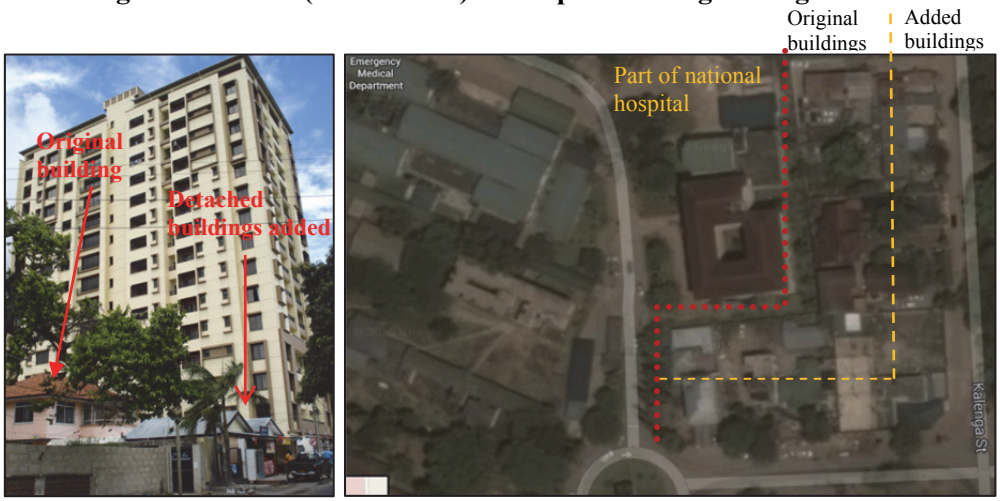
> *"Developers construct other buildings within their developed residential plots. If you go around you will see additional buildings such as residential family houses, retail shops, kiosks, pharmacies or coffin outlets in some plots."*[65]

As narrated by real estate agent E in the foregoing quotation, field observations also revealed that housing units were added through infill activities. For instance, rental residential buildings were added by property owners in the already developed residential plots as an income diversification strategy. Depending on the plot size, developers added single family detached residential or just single (small) family holiday rental units.[66] In most cases, tenants of such units were separated from the landlord's house by a short wall. In few cases, particularly in plots located along main roads, construction was meant for residential as well as for office accommodation. Another form of infill development involved construction of small buildings along the solid fences for

[65] Interview with real estate agent E, Upanga area, May 10, 2014
[66] http://www.lamudi.co.tz/

commercial rental purposes (see Figure 7.4). These were normally used either as retail shops by house owners, coffin outlets or pharmacies. While retail shops were scattered all over the neighbourhood, pharmaceutical shops and coffin outlets were concentrated nearby main hospitals.

Figure 7.4: Infill (commercial) development along Kalenga Street



Source: Fieldwork, 2014 and Goole Earth, 2014

As shown in the figure, residential infills are more dominant in areas where high-rise multi-family buildings have been constructed as well as along main hospitals. This population increase, accommodated in the multi-storey residential units, has remarkably increased the demand for more services and in turn opened up opportunities for investing in the required services such as supermarkets, hotels/restaurants, office accommodation, etc., which altogether have invigorated more building spaces within which services could be provided.

7.3 Driving factors for housing production

The mushrooming of high-rise buildings in Upanga is being driven mainly by market forces, proximity to the CBD and Kariakoo and changes in government plans.

7.3.1 Market forces

High demand for residential premises

The Upanga Redevelopment Plan (2006) acknowledges that the growth of high-rise buildings in the neighbourhood was a response to address the increasing demand for residential, office and commercial needs (URT, 2006: 4). The plan further stresses that the high demand for housing in the area has been contributed by the failure to shift the government headquarters and functions from Dar es Salaam to Dodoma. Furthermore, Owens (2012: 11) discussing changes of land use and prices in Upanga argues that the neighbourhood started to transform in terms of building structures about a decade ago when NHC initiated joint venture in high-rise residential buildings to meet the increasing demand for residential apartments.

During fieldwork and similar to Owens' observations, all 13 house developers and two real estate agents when asked what were the driving factors for housing production/supply in Upanga mentioned high demand for residential use as a primary investment driver. One group of developers, which has political affiliations, made an interesting comment on the dominant use of buildings in Upanga compared to other inner-city areas surrounding the CBD such as Kariakoo:

"No doubt! Upanga is a more residential area than other uses and many developers construct buildings in this area because of high demand for residential units. For instance, in our 25 storey building we have more than 50 residential apartments and just few commercial and office spaces in the lower floors. There are also buildings in this area which do not accommodate different uses other than residential. With these simple examples one can see the logic in my arguments."[67]

Real estate agents provided another indicator for the high demand mentioning occupation time of residential apartments over other uses such as commercial. They noted that residential apartments were often occupied earlier (in less than six months) than commercial and office spaces.[68] These results were complimented by author's observations on the nature of advertising housing units. In this case, bill boards, posters on solid walls and internet websites.

Similar results were found as the author navigated real estate related internet websites. For instance, an apartment seeker N, substantiating the high demand for residential apartments and occupation time in a post on real estate local webpage, Jamii forums, said:

"Wadau weekend hii nimeamua kupita hizi apartments za Upanga hapa na mwenzangu kuangalia apartment ya kupanga/kununua!! hakuna apartment open ya dola 1,500 iliyoko wazi na majengo mengi yaliyoisha miezi 6 iliyopita yako full tayari."[69]

Translation:
"Comrades, this weekend I and my fellow decided to visit apartments in Upanga with a purpose of looking for a rental/sale apartment!! There is no unoccupied apartment whose monthly rent is US$ 1,500 and most of completed buildings in the last six months (with the same apartments and rents) are already occupied."

It is also evident from the quotation that through transformation processes that has taken place in Upanga, more residential apartments are produced as compared to any other use. Secondly, there is more competition on apartments whose monthly rents are US$ 1,500 or below. This also implies that a maximum of US$ 1,500 rental value per month is offered by most renters, and seem to be more or less market rent as most apartments offered at this price are rented and occupied as soon as they are completed. Other residential apartments whose rents are above US$ 1,500 per month are rented to affluent households or individuals. These remain vacant for some time or it takes longer than six months to be rented out. This situation suggests that rents for such apartments may be higher than what the majority of customers can afford or are willing to pay.

7.3.2 Proximity to CBD and Kariakoo

Second to high demands, building reconstruction or supply in Upanga is greatly influenced by its location. Eleven out of thirteen or nearly 85% of house developers wanted to construct buildings in Upanga because of its attractive location in relation to the CBD and other prime areas such as Kariakoo and Oysterbay/Masaki. These results confirm the primacy of location in real estate investment. This also blends with reasons given for the preparation of Upanga Redevelopment Plan (2006). According to the plan, the decision to redevelop Upanga was a result of three main

[67] Interview with developer U, Upanga area, May 23, 2014
[68] Interview with real estate agent E, Upanga area, May 10, 2014
[69] House seeker N in Upanga, December 13, 2014 as he commented on Jamii forums

reasons, all related to its prime location in the urban continuum. First, it [Upanga] was seen as an alternative area to accommodate activities and investments that could no longer be accommodated in the CBD (Posta) and in Kariakoo. Secondly, CBD and Kariakoo were almost fully redeveloped and prices and rents had been inflated; and finally, CBD and Kariakoo were shopping and working areas for customers (URT, 2006: 4). In other words, one of the aims of redeveloping Upanga was to provide proximal residential accommodation to people who work within the CBD and Kariakoo areas.

7.3.3 Changes in government plans

Following the functional and morphological changes of buildings that had occurred till 2004, which contradicted the 1979 master plan; the government decided to prepare a Redevelopment Plan for Upanga in 2006. By 2004, two years before the redevelopment plan was prepared, already there were 22 four storey, eight five storey, two six storey, one eleven storey and one fifteen storey (under construction) residential buildings. Moreover, there were two four storey and one five storey commercial-residential buildings in the area (URT, 2006: 20-22). These building heights already exceeded the two to three storeys as per recommendations of the master plan (1979) which implies that developers either did not know about the existence of the development plan or they violated the plan recommendations. Therefore, because of such developments, a decision to prepare the Upanga Redevelopment Plan (2006) was mooted. The primary objective for the preparation of the plan was to change the settlement to match the existing situation and control its future development. The specific objectives of the plan were to transform the area into a modern thriving and attractive residential, institutional and commercial-residential neighbourhood of an international status as well as meeting the increasing pressure for high class office and commercial spaces (URT, 2006: 5, 6, 15, 20-21).

Nevertheless, when developers were asked to discuss the main drivers or factors that motivated them to construct high-rise buildings in the area, only two out of thirteen developers reported to have been influenced by the decisions of the government to redevelop the area. One of the two developers, who were influenced by Upanga Redevelopment Plan (2006) to invest in real estate and whose buildings were constructed according to the plan guidelines, explained the role of development plans as the following narration demonstrates:

> *"The plan, as an official document to guide development of the City or part of it, is a guide to developers. It puts clear to developers what they are supposed or not supposed to do. Without a plan, nothing will be developed according to the required space standards by the responsible planning authority. At the end, the building or part of it will be subjected to demolition. People have heard and seen this happening in the country but they still don't want to follow the requirements of the plans."*[70]

From the narration it may also imply that developers might not have been aware of the existence of the plan; and thus being the reason for constructing high-rise buildings which exceed building heights contrary to recommendations of the plan. However, this cannot be an excuse because building conditions and space standards, which are part of the plan, are issued when applications for building consents and permits are made by developers in the respective authority.

[70] Interview with developer I, Upanga area, May 23, 2014

7.4 Developers

The analysis has shown that house developers in Upanga belong to three major groups: private, public and public-private developers. Private developers comprise two distinct sub-groups: individuals and real estate development companies.

7.4.1 Private developers

Individual developers

These are small-scale developers who often add detached residential or commercial buildings within their plots through infill development, renovation and refurbishment or make vertical extension of existing residential buildings so as to boost their income. In few cases, they demolish existing single detached residential buildings and replace them with multi-storey residential units. The main sources of finance are individual savings and borrowing from local banks under specific conditions whereby title deeds or their job positions serve as collaterals.

Private real estate development companies

The increasing size of housing projects in Upanga has been largely contributed by the engagement of private real estate development companies mainly of foreign origins. Also, the increasing number of building projects signifies an increase of private sector capacity. Evidence on this includes the tendency to employ foreign contractors in different building construction projects. Most projects, especially those which are over 10 storeys, were often constructed by Chinese construction firms. Results from interviews with private real estate companies showed that the reasons for engaging contractors of foreign origins are the size of projects and lack of capital financing for Tanzanian local contractors. In line with this argument, the Upanga Redevelopment Plan (2006: 4) notes that the huge investments which transform the area from a typical residential area to mixed uses are financed by internal and international sources. Moreover, findings showed that 59 out of 97 buildings produced and supplied by private real estate companies of foreign origins were for sale rather than for renting. Nevertheless, those who bought apartments did not use them but rather rented them out. This means that demand for housing in this case is for investment than for consumption reasons. Access to land for such was through buying plots with run-down two to three storeys from original owners.

7.4.2 Public/semi-public developers

The main public housing development agency in Upanga is NHC. NHC has more housing stock than other public and semi-public agencies in the area. Following the deterioration of its building stock, currently the Corporation is demolishing the old 2-3 storey buildings and reconstructing or replacing them with high-rise multi-family buildings (NHC, 2010). In some cases it was found that the Corporation has been forced to construct new high-rise buildings in the area because its old buildings have been surrounded by modern high-rise buildings. For instance, during physical surveys in the settlement it was observed that NHC had built a 12 storey residential rental building along Mindu Street, where housing production through demolition and redevelopment of high-rise buildings has intensified in recent years. Other public and semi-public agencies particularly pension funds neither possessed housing stock nor constructed buildings in this area. They owned buildings in the CBD and in intermediate areas (mainly for commercial use), and in the peri-urban areas for residential investments because of easy access to land. Justifying this

argument, a property officer at PPF who also represented opinions of other semi-public developers affirmed that:

> *"On the case of where to invest, when PPF was established, more focus was in the CBD and on commercial buildings in particular. In the case of residential accommodation (high-rise buildings with flats), we develop in other prime areas of Masaki and Oysterbay since these areas accommodate government houses for high profile government officials. We normally buy those privately owned buildings that were sold to willing government workers during the privatization period as there is no vacant land within such areas. We are motivated to invest in these areas because rents are high; ambassadors, diplomats and the rich people prefer living in these areas."*[71]

Most semi-public agencies and pension funds such as PPF, NSSF and PSPF have a life long history in real estate activities in the country. Statistics also show that besides contributions from its members, real estate activities contribute about 15% to their income portfolios. Therefore, in order to meet the objectives of pension funds, real estate activities particularly commercial properties in prime areas have been feasible investments for income diversification. As such, pension funds target investments in areas with possibilities for high returns.

7.4.3 Public-private developers

The joint ventures (JVs) are between NHC, which owns the largest housing stock as a result of the Acquisition of Buildings Act (1971), and the private sector. Therefore, NHC has an influence on the redevelopment of the area to a great extent. Owens (2012: 11) notes that the first joint venture between NHC and the private sector in Upanga was carried out in 1999; NHC adopted a build and operate strategy in the development of buildings in prime areas. As a result, by 2012 NHC had about 5,000 tenants and the revenue collected from the neighbourhood accounted for 38% of total NHC revenue. It was expected that there would be a total of 41 building projects in 2013 out of which 18 would be joint ventures and such buildings were estimated to produce a total of 2,968 housing units (ibid). Table 7.2 further illustrates joint venture building projects carried out and the estimated number of housing units produced in subsequent years.

Table 7.2: Joint venture projects in Upanga (1999-2013)

Completion year	No. of projects	Joint ventures	Estimated units
1999	1	1	30
2000	2	0	156
2002	1	1	48
2005	7	3	444
2006	1	1	90
2009	1	1	72
2011	4	4	186
2012	15	5	1,362
2013	9	2	580
Total	**41**	**18**	**2,968**

Source: Owens, 2012: 11 and the author, 2014

[71] Interview with PPF Property Officer, Morogoro Rd/Samora Avenue, March 31, 2014

The share arrangement between NHC and the partner in a certain project varies mainly depending on, for example, issues related to access to land. In this case, because NHC offers land as equity, it normally makes good contribution to JV projects. In cases where land is bought by both partners, the share depends on the number of partners. Depending on these circumstances, the commonly adopted shares (NHC: partner) are 25: 75, 40: 60 and 50: 50[72]. The amount of capital needed for building construction is also huge because projects are large-scale and hence require a considerable and reliable amount of financial resources for successful execution. Responding to this, NHC official noted that they have two main sources of finance: revenues collected from its already established and running projects; and loans from banks. Often, private parties contribute resources from the company's accumulated profit as well as through mortgage finance, the latter is however minimal, especially for large-scale real estate projects. Owens (2012: 15) argues that the NHC JVs are often with companies that have access to external markets for liquidity through import and export businesses. The author, however, doubts if an emerging private real estate development class is based on capital flow within the Tanzanian system.

7.5 Scales of house suppliers/developers

In determining the scales of house suppliers in Upanga, the methodological approach narrated in section 5.5 was used in order to arrive at conclusions presented in Table 7.3 (see also Appendix 9b).

Table 7.3: Scales of house developers in Upanga

Year	**Scales of developers and classes of contractors vs building project cost limits (mill TZS)**						
	Small scale developers vs small contractors		Medium scale developers vs medium contractors		Large scale developers vs big contractors		**Total projects**
	20-120	121-200	201-600	601-1,200	1,201-2,200	above 2,200	
2006	-	-	-	-	-	-	**-**
2007	0	0	0	2	1	3	**6**
2008	1	1	1	1	1	6	**11**
2009	0	0	1	1	1	4	**7**
2010	3	1	1	0	0	7	**12**
2011	2	1	0	0	0	14	**17**
2012	0	1	2	0	0	17	**20**
2013	0	0	1	3	1	5	**10**
04.2014	1	0	0	0	0	3	**4**
Total	**7**	**4**	**6**	**7**	**4**	**59**	**87**

Source: Field data, 2014

7.5.1 Small-scale developers

Basically they include individual developers who may add, renovate, refurbish or extend buildings within developed residential plots. Arising from Table 7.3, 12.6% of all housing units were produced and supplied by small developers. In most cases, buildings produced are residential with one to three storeys. Results from the analysis of registered housing projects by AQRB over a period of eight years (2006-2014) showed that seven out of eleven building projects (nearly 64%) undertaken by developers in this group were through renovation, rehabilitation, refurbishment or vertical extension of one floor, while the remaining four out of eleven projects (36%) involved demolition of existing buildings and redevelopment of one to two

[72] http://www.nhctz.com/jv/

storey residential buildings. Also, infill development which basically involves construction of small commercial buildings within residential plots; mostly produced housing units that are used as pharmacies, mini-supermarkets, shops and coffin selling centres.

The construction costs ranged from TZS 18.5 to TZS 200 million. The cost involved during renovation, rehabilitation, refurbishment or vertical extension was between TZS 18.5 and 88.5 million while TZS 200 million was used in the construction of one to two storey buildings. Construction activities in this case were attended by small (class VI and VII) or unregistered contractors. As a matter of fact, developers who add commercial buildings often live with tenants within the same plot but in different houses; while those who demolish and redevelop, renovate or refurbish lease them out and relocate to other residential areas i.e. establish new residences. As long as developers in this group own plots or are employees in the public and/or private sector, housing finance was through own funds accumulated over time. The minority borrowed from banks using land or job positions as collaterals.

7.5.2 Medium-scale developers

Table 8.3 shows that 13 out of 87 registered housing projects were medium-scale projects. In other words it can be said that 14.9% of all developers in Upanga belonged to this group largely comprising local real estate development companies and few individual developers or families of Asian origin, mainly from India. Real estate companies supplied more rental commercial buildings particularly offices and hotels than other types of building uses. Developers in this group provided up to five storeys rental residential or commercial-residential buildings rather than commercial by contracting construction works to medium contractors (class IV and V contractors), majority were allocated land by the government and housing finance was enhanced by own savings and housing loans from financial institutions.

7.5.3 Large-scale developers

Private real estate companies (local and foreign), public real estate developers and private-public joint ventures are in this group. From Table 7.3 it can be seen that 63 out of 87 registered projects were large-scale. The buildings constructed had heights ranging from eight to 24 storeys, the cost of such structures were between TZS 1,201 and above 2,200 million. This study adopts Pattaroni et al. (2012: 1239) figures and thus considers building projects with values from TZS 1,201 to 2,200 million as middle large-scale projects; while those with values above TZS 2,200 million are large-scale or real estate-driven projects. In this case, middle large-scale projects supplied high-rise buildings with eight to twelve storeys and buildings beyond 12 storeys were constructed by large developers. This being the case, with reference to Table 8.3 it is evident that only 6.4% (or 4.6% of all registered projects) in this group were middle-large and the rest 93.7% (67.8% of all registered projects) were large projects.

Both developers in the two sub-groups, except in cases where projects were joint venture in which one party may own land or where projects were publicly owned, access to land was by buying the existing old buildings. Later on such buildings are demolished to pave way for new high-rise buildings built by big contractors. The majority (93.7%) of developers in this group and 72.4% of all developers in Upanga who belong to a large-scale developers' category employed class I and II or simply foreign contractors. 6.4% of developers in this group and 4.6% of all developers in the area employed class III contractors. Generally, buildings produced were of high quality and tended to use capital intensive equipment rather than labour intensive. Building

projects undertaken by such developers have fair high values as such; most local banks cannot offer mortgage finance (as most local banks are limited to only TZS 500 million). Thus, foreign developers often strongly depend on international financial sources while local developers use own sources[73]. These findings tally with those stated by URT (2006: 4) that the growing of high-rise buildings for residential, commercial and office investments is financed through internal and international sources.

7.6 Housing production biography of Y: a large-scale individual/corporate developer

The story, as it was narrated by a senior worker of the company, represents a local large-scale real estate developer who stepped into real estate investments as a result of capital accumulation and a means of reproducing it. The worker explained:

> *"Mr.Y (the house developer and supplier) is a Tanzanian of Asian origin born in 1949 in Zanzibar and dropped out of school at the age of 14 years. He then became a potato mix salesperson in his small restaurant in the 1970s before venturing into grain milling. Three decades later i.e. in 2000, his small business venture had grown into a conglomerate of various companies with operations in Tanzania, Zanzibar, Uganda, Kenya, Malawi, Zambia and Mozambique. Currently, he owns a group which is the largest producer of wheat flour in East Africa and he has also invested in food beverages, packaging, logistics and real estate. According to Forbes 2012 he is one of the top 40 richest people in Africa and second in East Africa."*

As the author asked his worker (name withheld by the author) to explain his housing production biography, the worker expressed:

> *"Mr. Y's first house was a family house built in Dar es Salaam using profit from business which was running at Gerezani-Kariakoo area since 1970s. Because he possesses many properties (buildings), his worker could not state the exact number but he just estimated that Mr. Y possesses an approximate of 30 completed buildings in Dar es Salaam. This number excluded buildings which were used as factories and those which were under construction such as the seven storeys commercial-residential building on combined Plot numbers 20&21, Block 55 along Livingstone Street in Kariakoo where this interview was conducted. He also owned other buildings in Zanzibar."*

When the author asked the worker to provide details of each property explicitly stating specific locations where each building was built, its type, proportion/size and use, how land and finance were acquired and locations for future development/investment; he declined to go into such details by claiming that he could not remember the details of each building. He generally stated:

> *"The majority of Mr. Y's buildings in Dar es Salaam were located in Upanga, Kinondoni, Buguruni, Karikaoo, Ilala, Oysterbay, Mbezi Beach and Chamazi. The buildings were high-rise in nature for running his business and other are rental purposes. Some buildings were stores and sales centres for different products while others were residential apartments for leasing out and not for sale."*

[73] Also see Owens (2012: 15)

He further said that high-rise buildings ranged between seven and nine storeys which were self-financed. The worker added:

> *"Mr. Y has a strong connection with the UAE as he originates from that region although he was born and raised up in Tanzania. Access to land is achieved mainly by buying old buildings in built-up areas, demolishing them and reconstructing high-rise buildings. The same approach (buying land or old buildings and constructing complex buildings structures) also apply in the peri-urban."*

As the author asked the worker detail on the current project along Livingstone Street, he said:

> *"Although the sign board indicated that the project was a joint venture, the other partners were his sons who are the directors of his company and all housing projects undertaken by Mr. Y are in that form. In other words, the building still belonged to Mr. Y. Land (plot) on which a seven storeys commercial-residential building was being constructed was bought from two original land occupiers (price was not mentioned) and combined to from one bigger plot to accommodate a new high-rise building. The ground floors were intended for commercial use while the upper six floors were expected to produce around 18 residential apartments for renting."*[74]

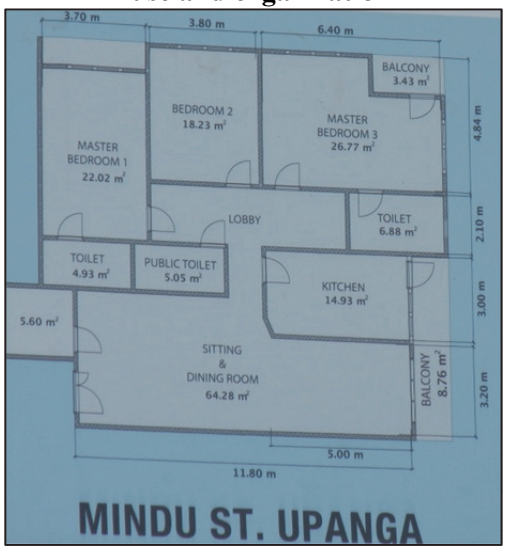
From the foregoing narration, there are important lessons. First, Mr. Y's investment in real property is to reproduce capital as he does not intend to sell his properties. Secondly, because of a diversified business portfolio, access to land, finance and housing development are basically dependent on own sources although the developer is internationally linked to the Far East.

7.7 Quantity and quality of housing supplied

7.7.1 Size of apartments

The new high-rise buildings constructed in Upanga constituted a minimum of ten and a maximum of 30 apartments whereas the sizes of the apartments, in terms of number of bedrooms, also differed. On average, a single residential apartment comprised a minimum of two bedrooms and at times the number increased up to five. The apartment, regardless of the number of bedrooms, has private, public and semi-public spaces such as toilets and bathrooms, sitting and dining rooms, kitchen and corridors which slightly differed in size depending on the apartment. Field observations revealed that two bedrooms residential apartments had an average gross area of 160m^2 while three and four bedrooms apartments had gross areas ranging from 180 to 187m^2 and from 200 to 214m^2 respectively. Most three bedrooms apartments contained three bathrooms/toilets while four bedrooms apartments had four bathrooms/toilets.

Figure 7.5: Apartment size, space use and organization



Source: Field data, 2014

[74] Interview with a representative of B group, private real estate company with Asian origin, Upanga area, July 29, 2015

Out of these, one toilet was public and it was commonly shared by users of the third and fourth bedrooms whose rooms were not self-contained (cf. Figure 7.5). However, apartments with two bedrooms were fewer than those with more than two bedrooms. It was also noticed that the gross areas of the rooms were bigger enough to accommodate basic functions, furniture and fittings. For instance, the gross floor area of combined sitting and dining rooms was around 60 to 65m^2; that of master bedrooms ranged from 25 to 30m^2 while the sizes of other rooms ranged from 18 to 20m^2.

7.7.2 Access to basic services

A survey conducted in 2004 showed that 62% of the Upanga population was supplied with piped water of good quality, 25% by deep wells of moderate quality (salty water), 8% harvested rain water while 5% of the population bought from water vendors (URT, 2006: 45). Recent estimates have shown that the current housing construction is not accompanied by infrastructure provision or upgrading. For instance, Owens (2012: 14) notes that less than 1% of infrastructure construction contracts were available in the area in the last seven years (2005-2012). Field results from this work including physical surveys reveal that public water supply was relatively adequate in plots with original two to three storey buildings because water demand and supply were almost still balanced. Access to portable water was a problem in high-rise buildings which accommodate multiple families. For example, responses from owners of tall buildings such as R Towers with 18 floors and C residence with 15 floors along Mindu Street reported that water was a major problem because of the low capacity due to old water supply system or infrastructure. An indicator for this problem was a tendency of developers of new high-rise buildings to provide water tanks (reservoirs) on top of buildings which, in most cases, is a remedy for insufficient water supply (cf. Figure 7.6). Water in the raised tanks is usually pumped either from deep wells dug within plots or during regular water flows within the area.

Figure 7.6: Raised water tanks (water shortage remedy) along UN Road

Source: Fieldwork, 2014

Electricity has also been a problem because of the persisting interruption or irregular power cuts by TANESCO. As a solution to the problem, often developers provide backup/standby electric generators. Other public services found in few buildings included security services and car parking lots. Yet, within some plots, indoor car parks were not provided. Some apartment layouts did not include laundry area within the apartments since clothes were hung on balconies (for

drying purposes) suggesting lack of common washing and drying facilities in some buildings or within individual apartments.

7.7.3 Building technology

All 13 developers interviewed, when asked to assess and give opinions on the quality of buildings they built, affirmed to have constructed high quality buildings and housing units that meet customers' preferences as well as the requirements of planning authorities. They also noted they had used foreign contractors who use capital-intensive technology or experienced local contractors who use modern building technology in building construction works. For instance, during interview with a representative of a local private real estate development company of Indian origin in Upanga area about building technology and finishing styles, she said that they used modern Arabic technology in constructing their buildings as the quotation below presents:

> *"We produce apartments of high quality. We have employed foreign contractors who use high construction technology and in the finishing we have used Arabic technology. We shall go in the rooms to see the Arabic decorations and you can take photos if you want."*[75]

Emanating from the quotation above, the author also observed that registered contractors of foreign origins were the main contractors while their fellow foreign or local contractors were sub-contracted in other specializations but the sub-contractors still worked under the supervision of the main contractor (cf. Figure 7.7). The author further saw that during construction, technological equipment such as cranes and concrete mixers were commonly in use in almost all construction sites.

From the figure it is apparent that the main building contracting firm originates from China which was also found to be a real estate development firm with its own sale and rental properties along Congo/Muhoro Street in Kariakoo area. The contractor for engineering works was also of foreign (Indian) origin.

It should also be noted, however, that this behaviour applied to large-scale real estate developers who construct multi-storey buildings exceeding seven storeys but below this number, local contractors took charge. The type and scale of developers, and customers' preferences commanded fairly good finishing inside and outside the buildings.[76] For instance, most developers mentioned marble tiles as the commonly used floor type while ceiling finishes included gypsum with extra decorations of Spanish or Arabic nature (Figure 7.8).

Figure 7.7: Local contracting company of foreign origin

Source: Fieldwork, 2014

[75] Interview with Marketing officer for A investment Ltd, private real estate company with Indian origin, Upanga area, April 16, 2014

[76] Interview with Senior Land Officer, April 04, 2014 and Senior Town Planner, Ilala Municipality, May 02, 2014

7.7.4 Furniture and fittings

Most residential apartments supplied were provided with furnishes such as modern furniture and fittings regardless of whether they were for sale or lease. Furniture included sofa sets, coffee and dining tables and chairs, beds and bedside stands as clearly illustrated by Figure 7.8. Also, house developers provided all rooms with fittings and other appliances in the apartments. As such, kitchens had built-in cabinets, sinks, electric/gas cookers, washing machines and refrigerators/freezers. Bedrooms contained built-in wardrobes while in most self-contained rooms, modern toilets/bathrooms and washing basins as Figure 7.9 further illustrates. Furniture and some electrical appliances lacked in few apartments for sale or rental but all fittings particularly in the kitchens, toilets and bathrooms were offered.

Figure 7.8: Apartment for lease in Upanga – sitting/bedroom furniture

Source: Author, 2014 and http://www.lamudi.co.tz/dar-es-salaam/dar-es-salaam-1/upanga/?, 2014

The figure below shows a typical building with apartments to be rented out in Upanga area and the types of fittings/appliances included in the kitchen and toilets. The majority of rental apartments within the area, except a few for sale, were provided with both furniture and appliances.

Figure 7.9: Fittings and appliances in the kitchen and toilet/bathroom

Source: http://www.lamudi.co.tz/dar-es-salaam/dar-es-salaam-1/upanga/?, 2014

7.8 Prices, rents and paying modalities

7.8.1 Building land

The nature of land ownership in Upanga determined the land market. Since land is almost owned by fairly high middle and high income households and NHC, selling of land/old houses was not very common. As a result, plot/house owners mainly demolished existing two to three storey buildings and rebuilt high-rise buildings as private entities or through joint venture arrangements. Very few land occupiers or house owners sold their plots and relocated to other areas. When the

author held an interview with Town Planners at Ilala Municipality, who are responsible for issuing planning consents, on land transactions in Upanga, one of them explained:

> *"I have not seen many land occupiers from Upanga coming to change ownership. The majority, particularly Indians, come to seek building consents/permits to redevelop their buildings into high-rise. Such land owners also construct buildings in joint ventures (private-private or private-public). In most cases, NHC is the sole public agency involved."*[77]

Owing to plot sizes and the type of buildings which are constructed in the area, plots were sold at relatively higher prices. Literature has recorded that in 2006, when the area started to undergo housing transformations and land selling was not very common, the average selling price of a plot/house was TZS 391million (US$ 325,833[78]). Internet search[79] and interviews with real estate agents show that in 2014-2015 period, the selling prices of old houses in the area along major arterial roads such as UN, Morogoro, Bibi Titi and Ally Hassan Mwinyi were higher than those in other locations within the neighbourhood. Along these roads which are good and strategic for office blocks and commercial activities, prices ranged between US$ 1.7 and 2.8 million while in other locations the sale price was between US$ 700,000 and 1.6 million depending on the plot size. For instance, a plot with 1,000m^2 along UN road was being sold at US$ 1.8 million while that with 1,700m^2 along the same road was on sale at US$ 2 million. Moreover, the asking price for a larger plot measuring 2,500m^2 was US$ 2.7 million while a smaller plot (600m^2) strictly for residential uses outside the arterial roads commanded a selling price of US$ 0.7 million. From these figures it can be seen that the average real price/square meter within Upanga was between US$ 1,100 and 1,200 circa TZS 1.8 and 1.9 million respectively. Original land occupiers who had sold land to developers, the price was paid in cash, thereafter procedures to change occupation were initiated.

Regarding land transaction processes, as noted in the quotation above, Upanga case has shown a different scenario. Only few land occupiers sold their land and relocated to other areas; the majority engaged in individual reconstruction or adopted for joint ventures. This means there were few cases where land occupiers sold their land and they were totally displaced.

7.8.2 Housing units

Residential apartments

The general observation on the prices and rents of the apartment between 2002 and 2014 reveal a sharp increase. Owens (2012: 13), using NHC data notes that in 2002 the price for an average three bedrooms unit for sale, depending on the size, was US$ 13,000-60,000. In 2008 the selling price reached US$ 1.5million, by 2012 the price of the same unit rose to between US$ 250,000 and 300,000. During the same period, the price and rent for the 2,000 units added to the market produced from 40 high-rise residential buildings were afforded by only the top 1% of the population (see also URT, 2013: 18). This is a remarkable change in one decade time. From his observations it is noted over the 12 years period (2000-2012) that apartment price in Upanga was increasing by 40% annually. In comparison with Dar es Salaam monthly income levels of US$

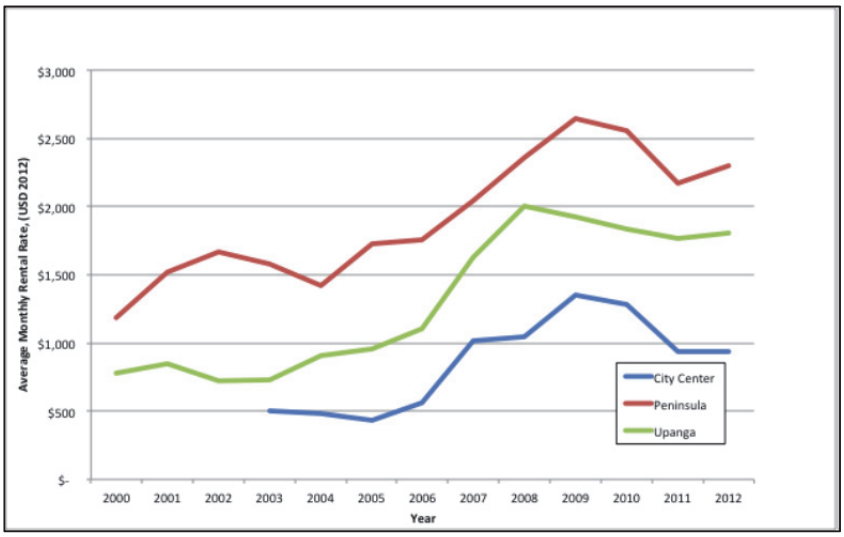
[77] Interview with Town Planner, Ilala Municipality, April 04, 2014
[78] The exchange rate of 1U$ was equivalent to TZS 1,200
[79] http://www.lamudi.co.tz/dar-es-salaam/dar-es-salaam-1/upanga/? and http://www.jamiiforums.com/habari-na-hoja-mchanganyiko/773419-real-estate-business-apartments-in-dar%3B-who-regulates-costing.html

174 in 2007, Owens stresses that the prices far outmatched the income levels. Finally, he concludes that multi-storey buildings were largely offering investment opportunities for wealthy individuals and from his subjective evidence derived from interviews indicated that the cash for purchase came from uncertain sources.

The current price of apartments (of the same use, almost of equal size and identical services in Upanga) were relatively uniform all over the neighbourhood and deviating from prices offered in 2012 with notable sharp increases. Data collected from NHC and other private developers showed that the price for a two bedrooms full furnished apartment, with a sitting and dining room, kitchen and at least one balcony ranged from US$ 210,000 to 220,000. Those with three bedrooms (one master, another self-contained bedroom and the third not self-contained sharing a toilet with the public), was being sold between US$ 230,000 and 270,000. The four and five bedrooms apartments with three and four extra self-contained bedrooms were sold at US$ 300,000-370,000 respectively. These prices included processing fee for a title deed and thence upon full payment of apartment price, a title deed was granted to the buyer.

Apartment rents have also been increasing. Figure 7.10 shows that from 2000 to 2012 the amount of rent had increased by 142.9% with an average annual increase of around 12%. The figure further shows that the amount of rent increased from around US$ 700 in 2000 to US$ 2,000 in 2008 and then decreased to around 1,700 in 2012. The decrease, according to Owens (2012: 13), was a result of anticipated increase of supply i.e. the 24 building projects which were under construction, accounting for an estimated 64% of new units which were expected to have been completed within the following 18 months.

Figure 7.10: Average rental charges increase in Upanga (2002-2012)



Source: Owens, 2012: 14

In 2014, interviews with public and private house developers, real estate agents and internet searches revealed a notable difference in rent with respect to apartment size and the level of service in the apartment (full or partially serviced/furnished). The general observation which was made, basing on the voices of different interviewees, is that rents were high and could not be afforded by the majority middle-income households or individuals. Commenting on the prevailing rents in the area, an apartment seeker N in Upanga who is a businessman and whose monthly income is about TZS 4.0 million (equivalent to US$ 2,500), on his way to search a

rental/sale apartment, he was left in astonishment as he was informed about the current rental prices. His concern as captured on Jamii forums in the quotation below expresses his feelings:

> *"Aisee, nimeshangaa sana. Apartment zote Upanga ni kuanzia dola 1,500 mpaka 3,000. Hio ni mil 2.6 mpaka mil 5.2 kwa mwezi. Majengo yaliyoisha mwezi huu huanzia dola 1,800 kwa mwezi, hiyo ni shillingi mil 3 kwa mwezi. Hehehe yaani unalipa laki kila siku unayolala."*[80]
>
> Translation:
> *"Hello, I was exceedingly terrified. Rents for all apartments in Upanga range between US$ 1,500 and 3,000. That is TZS 2.6 and 5.2 million respectively per month. Apartments in all buildings completed in this month are rented at US$ 1,800 per month, which is equivalent to TZS 3 million per month. (A laughter) that means you pay TZS 100,000 per every night."*

More specifically, partially furnished[81] two bedrooms apartments were rented out at US$ 1,000 to 1,200 per month while the same sized but full furnished[82] apartments were rented at US$ 1,400-1,800 per month. In the category of three bedrooms apartments, those partially furnished were leased at US$ 1,500 per month while that with all furnishes commanded a rent of between US$ 2,000 and 2,200 per month. Other house types in this category, for instance, single family maisonettes with two floors were rented at US$ 1,000-1,150 per month. On the other hand, the monthly rent of four bedrooms fully furnished apartments was above US$ 2,200.

A private real estate consultant and an academic staff at one of the public universities[83], as well as public and private urban professionals acknowledged that the rent charged was a burden for low- or middle-income households. Hence a preliminary conclusion that the targeted customers were high-income households was made. The same argument was repeated by an apartment seeker N as the quotation below expresses:

> *"Hawa watu wanafanya nini mpaka iwe rahisi kwao kulipa 5mil a month kama kodi ya apartment? Na sio mmoja au kumi, ni watu wengi sana!! Hawajala, bado mafuta, bil za umeme, outing, shule Kudadeki! Hivi is there something I am doing wrong au ni vipi? Sielewi vizuri."*[84]
>
> Translation:
> *"What kind of jobs do those people who can afford to pay TZS 5.0million as monthly rent have? These are not few or ten persons, they are many!! This is only an apartment monthly rent; they have not fed their families, fuelled their cars, paid electricity bills, have not gone out and paid fees for their kids! Is there something I am doing wrong?"*

---

[80] House seeker N in Upanga, December 13, 2014 as he commented on Jamii forums with slight editing: http://www.jamiiforums.com/habari-na-hoja-mchanganyiko/773419-real-estate-business-apartments-in-dar%3B-who-regulates-costing.html

[81] Partially furnished apartment in this regard means no furniture but all the fittings are provided. Parking is usually within open car spaces and swimming pools and gyms are rarely provided. Note that unfurnished or partially furnished residential apartments in Upanga are very few.

[82] Full furnished apartments are provided with both all furniture and fittings (cf. figures 7.8 and 7.9). Other services such as indoor parking are also provided.

[83] Interview with K (PhD) at Mwenge area, March 13, 2014

[84] House seeker N in Upanga, December 13, 2014 as he commented on Jamii forums: http://www.jamiiforums.com/habari-na-hoja-mchanganyiko/773419-real-estate-business-apartments-in-dar%3B-who-regulates-costing.html

The apartment seeker, as the quotation elucidates, expresses the same feelings that Owens articulated while commenting on apartments' prices. Foremost, the respondent doubts about the sources of cash for those who can afford to pay the rents. Secondly, he wonders about other sources of income and notes that those who can afford these rents may have illegal income sources.
Responding to the above arguments by the apartment seeker N, another said:

> *"As kila familia tajiri nchi hii inaishi Dar es Salaam, kama sio wazazi basi watoto wao, fikiria familia zinazomiliki [majina yemehifadhiwa na mwandishi wa kazi hii] zina uwezo gani kipesa?"*[85] Which means: *"As every rich family in this country lives in Dar es Salaam, if not their parents then, they are their children. What financial abilities do families which possess [names withheld by author of this work but included oil companies, prominent business people and high profile government workers] have?."*

The same feelings, but focusing on customers, were also expressed by another respondent who commented:

> *"Wanaopanga huko wengi wao sio Watanzania; ni mabalozi na wafanyakazi wa kigeni."*[86] Translation: *"The majority who rent there [in Upanga] are none Tanzanians; they are ambassadors, diplomats and foreign workers."*

From the responses and the foregoing quotations, the study has established that most of the main customers of most of the new housing units were high income households and individuals.

Commercial spaces
All commercial and office rental spaces which are usually for large stores including mini and supermarkets, and international companies such as Samsung and OGM had no uniform monthly rental charges. This is due to the fact that their sizes differed and so were the rent charged. This made it difficult to establish individual rental values. However, from interviews with real estate experts and documentary evidences it was noted that there was a unit price per unit area which was used to calculate rent. Currently, rental charges per square meter for office and commercial spaces in high grade areas in Dar es Salaam, Upanga inclusive, ranged between US$ 20 (TZS 32,000) and US$ 21 (TZS 33,600). This means that the amount of rent per calendar month is a function of total floor area and unit price. From this derivation it is obvious that rents for bigger commercial spaces in Upanga were too high to be afforded by most local businessmen.

Regardless of the use (whether commercial or residential), rental charges were charged on annual basis and beyond i.e. tenants were required to upfront pay for 12 months. The paying modality of residential apartments on sale, on the other hand, was cash or 50% down payment of the total apartment price with an allowable time of six months for paying the balance by instalments.

7.9 Information flow

Figure 7.11 summarises the major means through which information on housing units were made available to would-be customers. Majority of developers in Upanga made their housing units

[85] Commentator S on N's post on Jamii forum, December 13, 2014
[86] Commentator L on N's post on Jamii forum, December 13, 2014

known through three main ways. The first and most prominent way involved situating adverts on plots where buildings were being constructed. The adverts usually indicated the size, quality and types of services to be made available in the building or in individual housing units. The second involved making brochures available either by developers themselves or by real estate agents. As prospective buyers/renters visited offices, they were also given such brochures or fliers. In some cases posters, which real estate agents received from developers, were also made available in their offices. Likewise, some pieces of cloth, bearing adverts of vacant housing units for sale or rent including telephone numbers, were often pinned on wall fences (cf. figure 7.11). Above and beyond, developers extensively contracted registered real estate agents by BRELA to advertise housing units. Real estate agents, upon being contracted, post the adverts on their websites or prepare billboards which are mainly situated at cross-roads (road junctions). Very rarely, informal brokers were involved. This is mainly because the majority of developers are large-scale and exhibit proper channels of the formal housing market processes.

Figure 7.11: Bill boards along UN Road and poster on a wall fence along Mindu Street

Source: Fieldwork, 2014

7.10 Customers

Customers (buyers and renters) can be placed into two groups: high-middle and high-income. Buyers of residential apartments, renters of office spaces and large-scale businesses form the high-income group while renters of residential apartments ranged from high-middle to high-income households. The majority of customers are Tanzanians of Indian and Arabic origins while the minority are native Tanzanians.

When a real estate agent was narrating on the would-be customers in Upanga, he made the following comments:

> *"Renters of commercial and office spaces are foreign companies, Embassies or Consulates, and Indians who run huge businesses and commercial stores such as supermarkets. Renters of residential apartments include Ambassadors, Diplomats and those with high financial abilities. Owing to the current prices of residential apartments, the middle- and low-income households cannot afford buying or renting. In my view, renters and buyers are high- and probably the emerging middle-income class."*[87]

[87] Interview with real estate agent E, Upanga area, May 10, 2014

7.10.1 General characteristics of customers

The type of business undertaken differentiated local renters of commercial spaces from international renters such as those who operated with international companies such as IBM and Samsung. In terms of occupation, owners of private institutions such as companies, educational and health facilities were highly fairly educated (with tertiary education) than those engaged in wholesale or retail trade (with secondary education). It was also evident that regardless of their occupation and education levels, both buyers and renters were married and had families. Concerning household structure, on the one hand, house supply responded to the current demand while on the other hand, demand also reflected on the family size. Field results showed that most residential apartments supplied within the area had an average of three to four bedrooms which was an indication that households also had an average family size of four people. The demand for housing space match the average household size of 4.0 people in Upanga as the 2012 population and housing census report provides (URT, 2013: 76).

7.10.2 Household resources

Employment

The large population of customers consisted of employees/self-employees in the formal sector; the majority being employed in the private sector and very few in the public sector. The presence of private institutions such as secondary schools, hospitals and universities within or in the surrounding areas offer employment opportunities. For instance, responses revealed that many doctors of Indian origin working in private hospitals live in Upanga as tenants. Some specialists, especially paediatricians who own private clinics in Kariakoo and Upanga, also live in the area and had either bought their apartments or were tenants. Also, medical and academic staffs who work at the national hospital and higher learning academic institutions live in Upanga.

Social resources

For decades, Upanga area was mainly for Asians particularly Indians who formed the middle class during the colonial time until to date. After independence in 1962, few Africans started living in the area after 400 plots originally planned for communal uses were added in area and largely allocated to them. These social groups have continued living in the area to date. During fieldwork it was discovered that there were private schools such as Almuntazir, Almundraraz, Ally Khan, Mzizima and Agha Khan whose population (pupils/students and teachers) were composed of Tanzanians of Indian and Arabic origins that either live within the area or in Kariakoo. It was also noted from a quick survey that there were prominent social clubs and shops for Asian food outlets. The presence of social clubs signifies that there are regular local and official social gatherings or events that bring people together in order to discuss and solve different social issues.

Physical resources

Responses from interview with professionals particularly land officers who are responsible to collect monthly property rent explained that buyers (owners) of apartments in different new high-rise buildings were almost the same people as he expressed his experience, captured during interview, as follows:

> *"Those who buy apartments in different newly constructed high-rise buildings in Upanga are almost the same. You can find the same name (owner) both in C residence and in R towers.*

They are doing so because of price speculation with expectations that there will be a housing demand boom in the future and they will therefore sell out apartments at higher prices."[88]

Moreover, the respondent (land officer) added that such apartment buyers or owners in the newly built high-rise multi-storey buildings owned other houses, including their residences, land and other assets in other areas in and outside Dar es Salaam. These assets include business activities such as large stores and light industries. Their residential houses are often located in other posh areas such as Oysterbay, Masaki, Msasani and Mbezi Beach.

Therefore, the above quotes show that buyers leased out as a price speculation strategy; waiting to sell the apartments when the price inflates.

Also, family members of the buyers' group owned more than one car implying that they depended much on private transport than on public transport. Renters, on the other hand, were reported to own at least one car. Developers, while narrating the design criteria of the new high-rise buildings stated that all the building designs included car parking because it was renowned from market studies that almost most would-be users own cars.

In a conclusion of the above account, a real estate professional and an academic member of staff at one of the public universities in Dar es Salaam while winding up a discussion on the targeted customers of the housing units produced in Upanga had these to say:

"May be I have little knowledge on who the low, middle- and high-income groups are. But I think my understanding is right…. I am totally not convinced that the low and middle income groups in Dar es Salaam or wherever in the country can afford paying not less than TZS 1.6 million (US$ 1,000) per month as rent for an apartment or buying it at not less than TZS 320 million (US$ 200,000). To be frank, the units in Upanga are strictly for the rich."[89]

Almost a similar conclusion was made in the article on the Business Times Newspaper; Issue No.1422 dated January 8-14, 2016 about new NHC residential apartments for sale along Mindu Street in Upanga. The analysis on the size of a duplex apartment, the sale price and conclusion on affordability level were as presented in the following part of the article:


BUSINESS TIMES
ECONOMIC AND FINANCIAL WEEKLY
'AFFORDABLE' NHC HOUSES FOR SALE...
Poor Tanzanians locked out of the scheme
Even a two-bedroom house (120-130 square metres) costs Tsh400 million – and the purchaser thereof is required to make monthly payments of not less than Tsh5 million...
According to NHC, their 179 square-metre three-bedroom duplex is sold at a price ranging from Tsh600 million to Tsh690 million. Needless to say, it is difficult – if not outright impossible – for a low or middle income person in Tanzania to afford.

Source: Business Times, 2016

7.11 Summary of major findings

The production and supply of housing units in Upanga largely involve demolition of former low-rise residential buildings and construction of complex high-rise residential or mixed use buildings

[88] Interview with Senior Ilala Municipal Land Officer, April 04, 2014
[89] Interview with K (PhD) at Mwenge area, March 13, 2014

by large-scale developers. In this case, 86% of registered building projects were carried out through this system in comparison with 14% of building projects which involved vertical extension and renovation of existing buildings mostly carried out by small and medium-scale developers. At a small scale, other housing units, whose quantities could not be established, were produced through infill development activities by constructing small detached family houses or commercial outlets. The production and supply of housing units in the area is primarily driven by the existing high demand for residential units closely followed by location of Upanga in relation to the CBD. Few developers are influenced to invest by the decision of the government to redevelop the area.

Large-scale developers usually accessed building land through outright purchase from original land occupiers or through joint venture arrangements with land occupiers. The majority of small and medium-scale developers are original land occupiers and therefore use their land to undertake modern building investments. Results of this study have shown that the emergence of real estate activities in the area has inflated land prices in the area. Until 2014 when this study was carried out, a small residential plot measuring 600m^2 was being sold at US$ 0.7 million as compared to US$ 325,833 in 2006 when transformation processes in the area had just started. These figure show that land price has been increasing by US$ 46,771 annually. In strategic areas for large business, the price was as high as US$ 2.7 million depending on the size; leading to an average price per square meter between US$ 1,100 and 1,200. Developers employ various sources in raising finance for their investments. Small and medium-scale developers mostly rely on own savings and loans from financial institutions while large-scale developers also depend on own savings and other international sources from their countries of origins.

Housing units produced and supplied have varying sizes (gross areas and number of rooms). Generally single residential apartments in newly constructed high quality buildings have two to six bedrooms with gross floor areas ranging from 160m^2 to 214m^2. Although the provision of social infrastructure services by the government at neighbourhood level was reported by developers to be a problem, developers provide such services within such as water, standby generators, security services and car parks. Also the majority of developers, regardless whether the apartments are for rental or sale, provide furniture and necessary fittings in the rooms. High land prices, the quality and quantity of housing units produced, basic infrastructure services provided and the prevailing high demand for housing units in the area sharply increase rental charges and prices. The analysis shows that in 2002 when NHC was the sole house producer and supplier, apartments were sold at between US$ 13,000 and US$ 60,000. In 2014, the same apartments were being sold at between US$ 210,000 and US$ 370,000. Also rents have been increasing as they were noted to be around US$ 700 per month in 2000 but by 2014 the rent had risen ranged from US$ 1,000 to US$ 2,200 per month. On the other hand, rent for commercial spaces per square meter ranges from US$ 20 to US$ 21.

The above price and rental charges for residential and commercial spaces together with opinions from different respondents show that the units produced and supplied are a target to affluent households. Nevertheless, developers are shifting from the traditional system of involving brokers (*madalali*) in land and housing transactions to using professional real estate agents. This being the case, land and housing markets in Upanga followed some rules of regularity as there were clear signs of unit prices and open procedures as far as access to land and housing is concerned.

This chapter forms a basis of discourse to examine compliance with building regulations by house developers in the following chapter.

8 HOUSING PRODUCTION AND URBAN MORPHOLOGY IN UPANGA

The chapter discusses how the on-going building redevelopment processes in Upanga affect the urban morphology. To achieve this, the urban morphology analysis technique is used to study the past and present land use development patterns, density, and urban structure/form by examining individual buildings, blocks and finally street patterns and spatial qualities.

8.1 Conversion of land use

Since the arrival of German colonialists in 1890, Upanga became an Indian residential quarter (zone II) with few areas for market halls as focal points for business, institutions and recreation (Brennan and Burton, 2007: 18). Until 1979, residential buildings, primarily comprising three to five storeys and few single storey houses, dominated the urban space. Residential use accounted for 62% whereas recreation areas and institutions comprised 19.6% and 18% of the total area respectively (cf. Table 8.1).

Table 8.1: Land uses in Upanga in 1978

Land use	Area (Ha)	%
Planned residential	222	62
Unplanned residential	-	-
Industrial	-	-
Institutional	66	18.4
Agriculture	-	-
Major open space	-	-
Hazard lands	70	19.6
Total	**358**	**100**

Source: URT, 1979

Land use in Upanga remained almost uninterrupted throughout until early 2000s. By 2004, a larger proportion of the neighbourhood area (37% of the total area) was used for residential use, flecked by institutions: government offices, educational and health facilities, religious and cultural activities (Table 8.2).

Table 8.2 Upanga land use composition in 2004

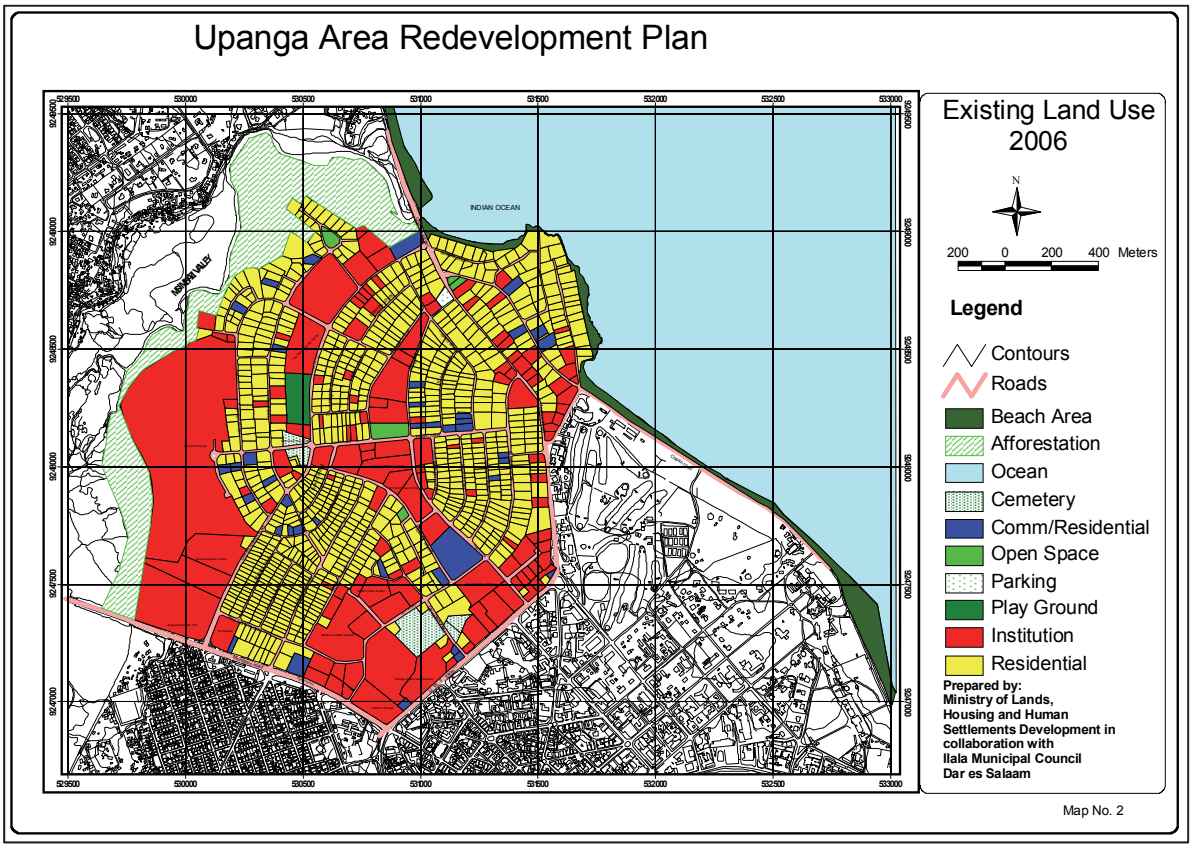
Land Uses	Area (Ha)	(%)	Land Uses	Area (Ha)	(%)
Residential	127.15	37	Recreation/open space	1.11	0.3
Institutional	114.82	33.7	Parking	1.15	0.3
Commercial	2.72	0.8	Circulation	81.34	23.9
Commercial/residential	4.09	1.2	Vacant Plots	2.42	0.7
Light Industries	0.09	0.03	Cemetery	4.53	1.3
			Under Construction	1.21	0.4
			Total	**340.63**	**100**

Source: URT, 2006: 13

Residential land use was concentrated along the Eastern part of the UN Road, the Fire station, the Mataka, Kalenga and Lugalo Streets, similarly from Upanga to Bibi Titi Mohamed Roads on the

Southern wing. On the Western part of the UN and Ally Khan Roads, institutions particularly health (hospitals) and education facilities overshadowed other land uses. The distribution of other land uses was as shown in Table 8.2 while Map 8.1 shows the spatial distribution of land uses as observed during the preparation of Upanga Redevelopment Plan (2006-2026).

Map 8.1: Land uses in Upanga by 2006



Source: URT, 2006: 14

From the Tables 8.1, 8.2 and Map 8.1 it can be seen that land use distribution for public use (open spaces and parking) as a public good has not being given the required emphasis or priority despite explicit provision in the redevelopment requirements and regulations.

From 2006 onwards, new ideas such compact city concept, new opportunities and desire for vertical expansion, increasing land values and investment aspirations were driving ideas during the preparation of Upanga Redevelopment Plan (2006). Basing on these, three types of major land uses namely office/commercial, commercial/residential and residential weighed more than other land uses. According to the plan, 25.3% of land was set aside for commercial-residential use, closely followed by institutional areas by 24.5%. Residential and institutional areas were decreased as only 4.6% of land was proposed for residential use as opposed to 37% in 2004; and institutional area comprised 24.5% as opposed to 33.7% in 2004. As these uses decreased, commercial-residential use increased from 4.09ha in 2004 to 86.301ha over the period of 2006-2026. Also, the changes were apparent because of the introduction of new land uses such as commercial-institution; afforestation and beach area (cf. Table 8.3).

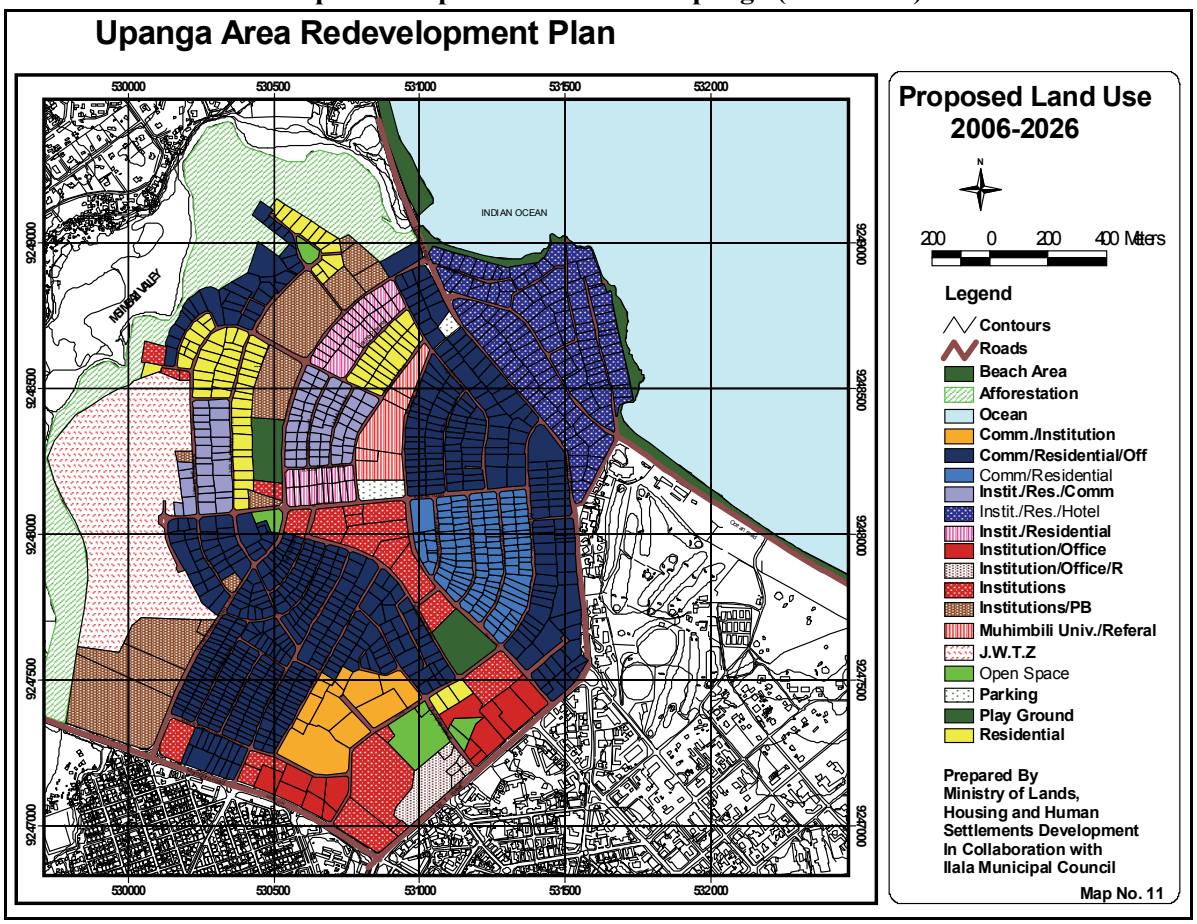
Table 8.3 Upanga land use distribution (2006-2026)

Land Use	Area (Ha)	(%)	Land Use	Area (Ha)	(%)
Commercial/institution	10.094	3	Residential	15.538	4.6
Commercial/residential	86.301	25.3	Parking	1.001	0.3
Commercial/residential/office	14.389	4.2	Playing ground	4.887	1.4
Institution	83.416	24.5	Circulation	30.955	9.1
Open space/cemetery	4.695	1.4	Beach	29.06	8.5
Institutional/office/residential	3.343	1	Afforestation	57.00	16.7
			Total	**340.63**	**100**

Source: URT, 2006: 59

Map 8.2 illustrates the spatial distribution of land uses presented in Table 8.3. As it is seen on the map, commercial-residential and institutional buildings were assigned to concentrate along major Roads of Ally Hassan Mwinyi to the western areas, UN Road towards the eastern areas and along the north-western end of Kalenga Street. The majority of residential buildings were located along Kalenga Street while the area close to the beach was set aside for commercial (hotel) with few residential buildings. The spatial distribution of the rest of land use is as shown on Map 8.2.

Map 8.2: Proposed land uses in Upanga (2006-2026)



Source: URT, 2006: 61

This clear shift was a result of high demand for accommodation which necessitated the area to undergo redevelopment - a process that had already started before the preparation of the plan. It is also obvious from Tables 8.2 and 8.3, and Maps 8.1 and 8.2 that existing public spaces such as play fields, cemeteries and parking areas have almost been maintained despite the rapid population increase. However, most of the public spaces particularly play fields are semi-public as they belong to religious and educational institutions. The beach area which consists of mangroves is a protected area.

Although the plan advocated more land for commercial-residential use, the Draft Dar es Salaam Master Plan of 2012 still found Upanga being a residential district (URT, 2013: 87, 295). Experience and fieldwork results, including observations and interviews, have also shown that Upanga is still a predominant residential area but with a mixture of other uses mainly institutions, government offices, educational and health, religious, cultural facilities and emerging commercial clusters. Furthermore, analysis of registered building projects and their intended use for the period of eight years (from 2006 to mid-2014) collected from AQRB support the same. As Table 8.4 presents, 63 out of 93 registered projects (67.7%) were high-rise residential buildings while commercial-residential buildings comprised 19.4% of the total registered projects. The rest were institutional, commercial and religious.

Table 8.4: Building projects and their use in Upanga (2006-2014)

Year	Housing projects and use of buildings					
	Commercial-residential	Commercial	Residential	Religious	Institutional	**Total projects**
2006	0	1	3	1	0	**5**
2007	0	2	5	0	0	**7**
2008	2	0	8	0	1	**11**
2009	1	0	5	1	0	**7**
2010	2	0	8	0	2	**12**
2011	3	0	13	0	1	**17**
2012	7	0	13	0	0	**20**
2013	3	0	5	0	2	**10**
04/2014	0	0	3	0	1	**4**
Total	**18**	**3**	**63**	**2**	**7**	**93**

Source: Field data, 2014

8.2 Plot characteristics

With garden city as the guiding concept, plot sizes in Upanga are relatively small measuring 400-600m^2 while few measure up to 900m^2. According to the national space standards (1997; 2011) and as Table 6.1 shows, most of these plots fall in the category of high and medium density. In accordance to the current urban planning and space standards regulations which provide plot sizes for multi-storey/block of flats of 400-600m^2 for high density plots, 1,000m^2 for medium density plots and 2,500m^2 for low density plots, it can be observed that the majority of plots in Upanga are high density. Very few which exceed 1,000m^2 (as section 7.6.1 of the previous chapter provides); are largely formed by merging two or more high density plots to form bigger plot required to accommodate fashionable large projects which are rapidly replacing the old two to three storey buildings.

8.3 Conversion of dwellings

Morphology of the former and emerging buildings

As presented in Figure 8.1a, the original buildings comprised 2-3 storeys mainly for two to three families only. Currently, such buildings are being demolished and replaced by high-rise multi-family buildings with up to 25 storeys and numerous residential apartments with new structures and forms. Owens (2012: 1) and URT (2013: 13) add that 40 high-rise residential buildings which had been constructed by 2012 added 2,000 units to the market. This implied that each building was able to produce around 50 residential units. In high density plots, a monotype house layout (double-banked) was dominant for high-rise buildings developed in such plots (cf. Figure 8.1b) while in medium density and combined plots, complex house designs and layouts, of which could not be traced in this study, were adopted (cf. Figure 8.1c). However, it was noted that the majority of the layouts accommodated almost all the necessary functional spaces required by the users. Only few house layouts, particularly of buildings to be constructed in high density plots, did not address and cater for some space requirements such as laundry. In such situation, washing took place inside buildings while drying was done on balconies. Had laundries been provided within individual apartments, drying could not be done on balconies bearing in mind that weather in Dar es Salaam is hot enough to enable drying within well designed and located laundry rooms.

Figure 8.1: Original and emerging buildings in single and combined plots

Source: Fieldwork, 2014

8.4 Conversion of density

8.4.1 Population and housing density

The national population and housing census of 1967 to 2012 portray that from 1967 to date (except in 2002) population in Upanga has been increasing over years (cf. Table 8.5). In 2002, two events contributed to the decrease in population. The first seems to have been related to family planning campaigns which propagated a decreased birth rate, while the second relates to changes of the settlement or ward boundaries (URT, 2006: 10). As a result, the 2002 population of the settlement decreased by 20.1% of the 1988 population.

Table 8.5: population growth trends in Upanga (1967-2012)

Year	Male	Female	Total Population	Population increase (%)
1967	6,698	5,992	12,690	-
1978	9,773	9,140	18,913	49.0
1988	10,461	10,366	20,827	10.1
2002	7,658	8,986	16,644	-20.1
2012	12,247	12,396	24,643	48.1

Source: URT, 1978; URT, 1988; URT, 2002 and 2012

Also, following family planning campaigns and changes on ward boundaries during the same period, the number of households and household sizes dropped. As per Table 8.6, for example, there was a decrease in average household size in Upanga West from 6.7 in 1988 to 5.8 in 2002 while in Upanga East the decrease was from 13.0 in 1988 to 4.7 in 2002.

Table 8.6: Household number and average household size (1988-2012)

Year	Ward	No. of households	Av.h/hold size
1988	Upanga West	1,633	6.7
	Upanga East	752	13.0
2002	Upanga West	1,610	5.8
	Upanga East	1,579	4.7
2012	Upanga West	3,369	4.0
	Upanga East	2,792	4.0

Source: URT, 1988; 2002 and 2012

With an area of about 340.6 hectares the gross densities were 37, 56, 61, 49 and 72 persons per hectare in 1967, 1978, 1988, 2002 and 2012 respectively. A study carried out in 2004 revealed that there was an incoming population of about 277,909 people on every working day. This included people doing shopping, working, trading, studying and hawking who did not permanently live in the area (URT, 2006: 11). This means that the daytime population was twelve times the 2012 night population which connotes that the daytime population density was higher (888 persons/hectare) than that of the night (only 72 persons/hectare). Today, the figures must have shot because of the mushrooming of high-rise buildings that attract residential, commercial and office accommodation in the area.

Regarding housing densities in the settlement, areas with low and medium housing redevelopment processes had 30 dwellings per hectare. In areas where high-rise and low-rise building redevelopment processes have intensified, housing density stood at 40 dwellings per hectare.

8.4.2 Building lines

> *"The former buildings were rightly built according to the prescribed plot setbacks in the planning documents. Violations can be observed in the on-going construction activities of high-rise market driven buildings particularly by private developers."*[90]

Beyond the qualitative expressions in the foregoing quotation, physical surveys revealed similar results in quantitative terms. Table 8.7 below summarises the findings of the real plot setbacks in each planning zone. The plot setbacks in the former 2-3 storey buildings still conformed to the required standards and regulations and hence depicted the required densities. In plots where such buildings are being pulled down to pave way for high-rise buildings, the majority of these new buildings have not been built in compliance with the regulations and standards and therefore higher densities were apparent. For example, developers in zone F (6-15 storeys) have adopted side setbacks ranging from 1.0 to1.5m on average; while front and rear setbacks were between

[90] Interview with Ms. A, Physical development control section at MLHHSD, May 08, 2014 and Town Planner, Ilala Municipality, April 04, 2014

2.0 and 3.0m. These were less than the recommended 4.0m on the sides and 5.0m on the front and rear sides by 2.5-3.0m and 1.0-2.0m respectively (cf. Table 8.7 and Appendix 4b). Almost similar trends were noted in zone B which is limited to 10 storeys. In this zone, some buildings had side overhangs, window grills, front concrete canopies and balconies which developers did not regard as part of the buildings and hence making side setbacks less than what is required.

Table 8.7 Minimum (permitted) vs actual plot setbacks

Planning area	Permitted setbacks (meters)			Actual setbacks (meters)		
	Front	Sides	Rear	Front	Sides	Rear
Zone A	3.0	1.5	2.0	3.0	1.5	2.0
Zone B	3.0	1.5	2.0	2.0	1.0-1.5	2.0
Zone C	3.0	3.0	5.0	1.5-2.0	1.0-2.0	2.0-3.0
Zone D	5.0	4.0	5.0	5.0	4.0	5.0
Zone E	5.0	4.0	5.0	5.0	4.0	5.0
Zone F	5.0	4.0	5.0	2.0	1.0-1.5	3.0

Source: URT, 2006: 76 and the author, 2014

Figure 8.2 shows two buildings on adjacent plots in the same zone B. While the first single storey building is built with the right setbacks, the new high-rise building shows non-compliance with planning regulations as the building seems to cover the entire plot implying that the adopted buildings lines are higher than the recommended standards.

Figure 8.2: Building setbacks of new building vs an old one along Maweni Street

Source: Fieldwork, 2014

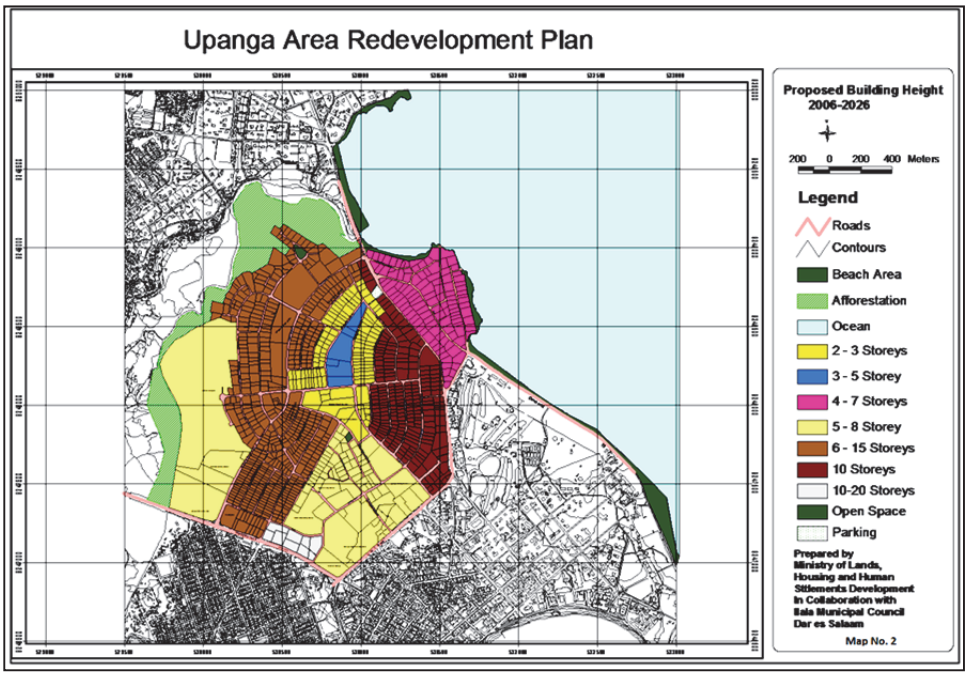
Like in Kariakoo, violation of existing building lines was common in private building projects than those observed in public or joint venture projects. Commenting on the distance between buildings, Owens (2012: 13) likens the real setbacks with “an unregulated race to finish”. He argues that new housing projects in Upanga were in close proximity to one another and hence the air flow between adjacent buildings and in the area is limited.

8.4.3 Number of storeys/building heights

According to Upanga Redevelopment Plan (2006), the heights of buildings took into account the improvement of existing skyscape and hence skyline buildings with uniform heights were

expected to be built. Exceptions were given along United Nations and Morogoro Roads whereby buildings were to be given special development conditions in order to allow the creation of the entry gates to the area (URT, 2006: 74). Therefore, the plan adopted building heights according to established planning zones (A-G) as Map 8.3 shows. According to the plan, zone E was supposed to accommodate buildings with 2-3 storeys only, the tallest buildings (10-20 storeys) were to be built in zone G while buildings with an average height of 5-8 storeys had to be contained in zone C (URT, 2006: 62-63).

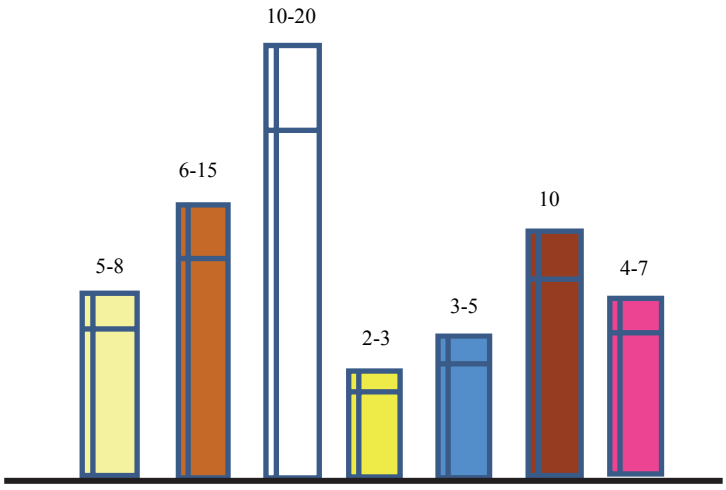
Map 8.3: Proposed building heights in Upanga (2006-2026)



Source: URT, 2006: 64

Translating the plan ideas of building heights presented on Map 8.3 into reality, the skyscape of buildings and the image in the settlement would develop as Figure 8.3 illustrates.

Figure 8.3: Upanga building skyscape as per plan ideas



Source: Own illustration from field data, 2015

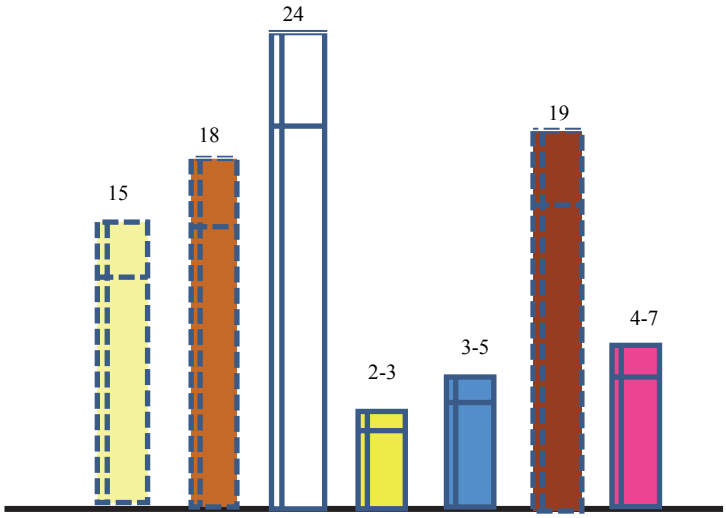
Opinions, perceptions and reality from town planners at Ilala Municipality during interviews indicated that the majority of private developers do not conform to prescribed building conditions while most public and joint ventures (public-private) do:

> *"Often those who do not comply with the official building heights in the planning documents are private developers while the majority of public and public-private do. The latter comply because all public and semi-public agencies comprise all disciplines of urban planning and management. Such professionals have no private interest in the resulting housing units."*[91]

The narration of the town planner indicates that the main reason for the majority of private developers for not complying with the prescribed building heights is more gains from the resulting housing spaces.

Field observations also revealed that some developers had complied with the requirements while others had not. It was noted that only zone A mainly consisting of hotel facilities and few tenement buildings, a military area - zone D and an institutional area - zone E had buildings with the permitted number of storeys. In the rest of the zones, building heights varied from lower than those recommended to excessively high structures (see Figure 8.4). For example, plot numbers 483, 507, 567, 571 & 572 and 574 at Mindu Street and plot number 884 along Morogoro Road fall within zone F in which buildings are limited to 6-15 storeys. In these plots, some of the new high-rise buildings were less than six floors, while others in the same zone exceeded 15 floors. For instance, a building on plot number 505 at Kalenga Street had 18 floors and another (under-construction) on a combined plot number 478&479 at Mindu Street was proposed to be 17 storeys. The same trend was noted in zone B, in which a building on plots 293-295 along Ally Hassan Mwinyi Road was 19 instead of ten storeys. Moreover, on plot 273 along Ally Khan Road, there was a 16 storey building while a 13 storey building existed on plot 228 at Maweni Street. Likewise, in zone C limited to 5-8 storeys, Sk Towers is 15 storeys and a 25 floors U building[92] is built in zone G whose buildings are limited to 10-20 storeys.

Figure 8.4: Actual building development and skyscape in Upanga



Source: Own illustration from field data, 2015

[91] Interview with Town Planner, Ilala Municipality, April 04, 2014
[92] Belongs to an association of a political party

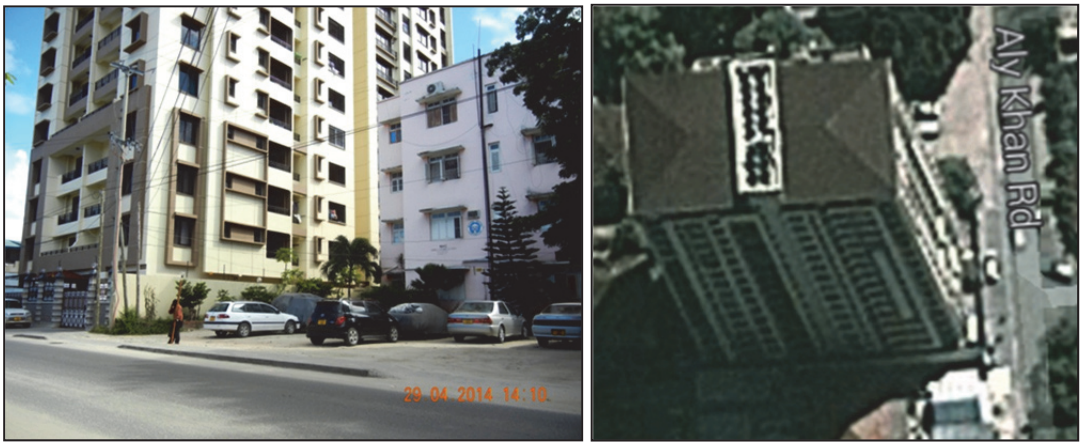
Also as noted earlier, most buildings spotted out in the examples above were privately owned and few were public or semi-public. This shows that not all public or semi-public buildings comply with building height and other space standards. It was further noted that private developers complied with the prescribed building heights in zones surrounding the military area because of the power exercised by armed forces particularly when intentional violations occur.

The above examples show that excessive building heights by private developers suggest loose enforcement of building regulations. Findings and cross-section analysis regarding building heights in respective planning zones as presented in Figures 8.3 and 8.4 also reveal that although there have been failures to comply with building regulations and standards, the intended physical image remains undisturbed. In other words, the analysis has indicated that the current trend of housing development (Figure 8.3) reflects the achievement of the intended image of the settlement as per the current Upanga redevelopment plan of 2006 (Figure 8.4).

8.4.4 Plot coverage and floor area ratios

Upanga Redevelopment Plan (2006: 75) provides plot coverage of 40% and 60% for low and high-rise buildings respectively. According to the plan, low-rise buildings are those with 2-4 storeys and the rest (above four storeys) are termed high-rise (ibid: 74). With regard to the national urban planning and space standards regulations (2011), the maximum plot coverage for medium and high density plots for multi-storey/block of flats must be 50% and 70% respectively. While observations and expert interview results exposed that existing plot coverage did not comply with the regulations and standards. Calculations confirmed plot coverage for most buildings to range between 75% and 88% which are far away from the permitted ones. For instance, Figure 8.5 shows a 16 storey building in zone B, on plot no. 273 along Ally Khan Road whose plot coverage was 84%.

Figure 8.5: Plot coverage along Ally Khan Road[93]



Source: Field data and Google maps, 2014

Likewise, Figure 8.6 presents buildings in zone F built on plots 571, 572-574 and 576 with 15, 14 and 18 storeys respectively at Mindu Street. Using the actual setbacks in the previous section to calculate the area covered by buildings in the combined plots (572-574), plot coverage was found to be around 88%.

[93] Both figures represent the same building. A picture was taken and then traced on google maps. Finally it was rotated to get its front and side views

Figure 8.6: Typical plot coverage of 18, 15 and 14 storey buildings on plots 576, 571&572 and 574 at Mindu Street[94]

Source: Google maps, 2014

As it can be seen from the two figures, almost entire plots are built up as external walls on both sides are very close to the wall fences. At the same time, there are short distances on the front and rear sides of the buildings. Lupala (2002: 59) records that in 2002, when the area was still dominated by 2-4 storeys, plot coverage was 20%. This shows that plot coverage has increased almost five folds within the period of twelve years (2002-2014).

On the other extreme, plot or floor area ratios in areas with old buildings, except in few cases where other structures such as stores have been added, remained largely undisturbed (1.2-1.8 for low-rise buildings and 4.0 for high-rise buildings). In areas where new high-rise buildings have been built, plot ratios were beyond plan recommendations. In these areas, plot ratios ranged from 6.0 for 5-10 storey buildings to over 9.5 for buildings with more than 10 storeys. For instance, a building represented in Figure 8.5 has a floor area ratio of 11.0. This has largely been contributed by overshot setbacks, plot coverage and building heights. These findings give a clear indication that the pace at which building redevelopments takes place in the area due to market forces is quite high. This also implies that there are high rates of densification and gentrification processes particularly in Upanga West where new high-rise buildings are mush-rooming.

8.5 Neighbourhood morphology and spatial qualities

8.5.1 Street layouts

In areas where there have been no major changes in terms of land use, housing types, forms and density; street layouts in terms of buildings alignment formed an orderly form. This was more apparent along UN, Morogoro, Bibi Titi and Ally Hassan Mwinyi Arterial Roads and along some parts of important feeder roads such Isevya, Ally Khan, Malik and Magore (Figure 8.7). In such areas, the former 2-3 storey residential buildings have not been converted into high-rise buildings. Also, the same figure shows a big contrast where the former buildings have been converted into

[94] Likewise, rotation was used to view plot setbacks and coverage in order to make comparisons with results from physical surveys

high-rise as the street layouts lack definition due to changing building lines. From the Figures 8.2, 8.5, 8.6 and 8.7 it can be seen that private developers tend to maximize the use of plots even beyond the recommended setbacks while public developers comply. In the figure, the more protruding building is a property of R towers (a private developer) while the less protruding is a property of NHC (a public developer).

Figure 8.7: Intact and varying building lines at Isevya and Mindu Streets

Source: Fieldwork, 2014

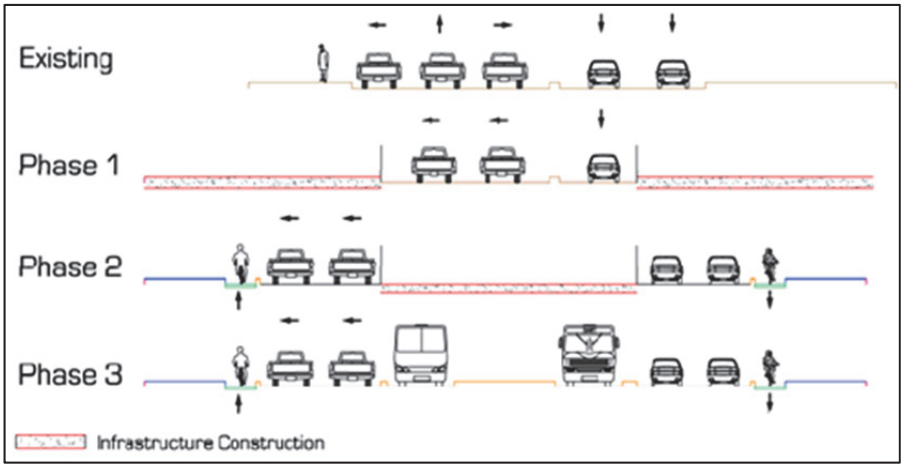
These results have revealed that streets are generally narrower than what is recommended. Currently, Upanga is characterised by high-rise buildings, some of which are up to 25 storeys (equivalent to 75m) containing more than 30 residential apartments, large commercial stores and office spaces. Estimates from physical surveys and observations have shown major roads such as Morogoro, United Nations, Bibi Titi and Ally Hassan Mwinyi being 30-40mRoW[95] while distributor/feeder roads were 15-20mRoW. However, along these roads there were some taller buildings than 24 storeys (equivalent to 72m). These results suggest that the streets have become narrower than they were supposed to be. Again, this is contrary to the street width standards i.e. minimum street/road width to be equivalent to the height of the tallest building along the street.

8.5.2 Traffic movement and parking

Results have revealed difficulties for traffic movement and parking due to narrow streets created in the present time as a result of the struggle by builders to maximize building land and weak enforcement of land use planning and development conditions. Along the arterial and few distributor/feeder roads, there was a clear separation between pedestrians and other road users; while in some cases, cyclists shared lanes with motorised transport. Figure 8.8 shows the existing and proposed situation of traffic circulation and management along Morogoro and Bibi Titi road junction. From the figure, it can be seen that currently, pedestrians are only separated from cars but share the lanes with cyclists. However, future plans ought to improve traffic flow by providing separate and independent lanes for pedestrians, cars, motorcycles and bicycles.

[95] Right of way, abbreviated as RoW, according to Wikipedia, is defined as a right to make a way over a piece of land, usually to and from another piece of land. It is a type of easement granted or reserved over the land for transportation purposes, and it can be for a highway, public footpath, a canal, railway, electrical transmission line, oil gas pipelines, etc. A right-of-way is reserved for the purposes of maintenance or expansion of existing services (http://en.wikipedia.org/wiki/Right-of-way_%28transportation%29)

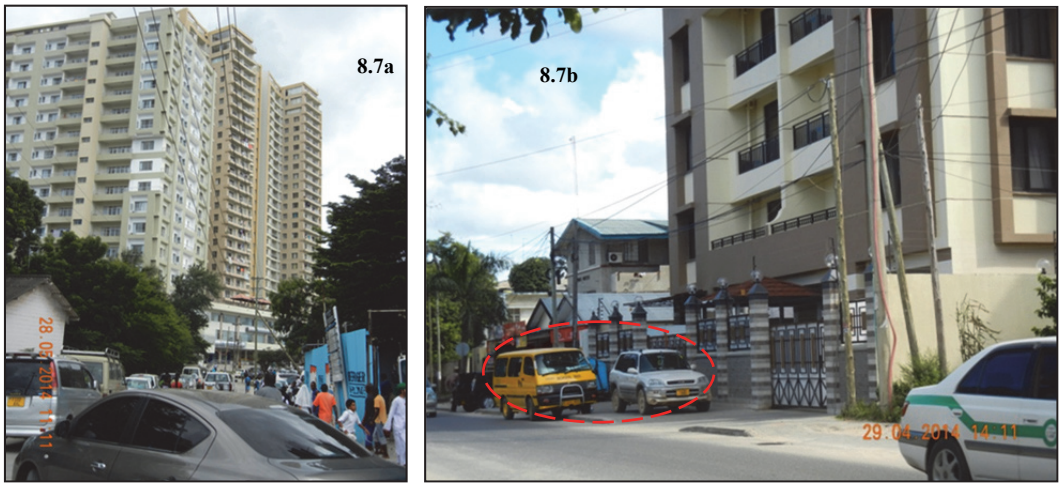
Figure 8.8: Current and future traffic movement along Morogoro/Bibi Titi road



Source: URT, 2007

In areas where high-rise buildings have replaced the low-rise, there were obvious traffic conflicts among users due to narrow streets. In such areas, vehicles were parked on pedestrians' pavements, paths or just on the street (Figure 8.9). More excruciating was that in some service and institutional areas such as private hospitals and shopping areas which attract more people, more land was occupied by buildings than the number of car parks available (cf. Figure 8.9a). The same practice was vivid in residential areas as shown in Figure 8.9b.

Figure 8.9: Traffic competition and on-street parking at Fire Station and Ally Khan Roads



Source: Fieldwork, 2014

In actual sense, this is a movement inhibitor as most respondents also agreed. When the author wanted to know why it is an inhibitor, replies mentioned conversion of dwellings into high-rise buildings beyond standards and an increased number of human and vehicle population with limited parking facilities in the neighbourhood. As a consequence, during peak hours, especially in the mornings, afternoons and evenings; there were excessive traffic congestions along distributor/arterial road junctions. Also, the plan seems to have provided limited and unevenly distributed public parking lots within the area. Only in public institutions, provisions of enough parking spaces were adequately considered. Overall, very few developers provided parking in the ground floors of the newly (re)constructed high-rise buildings.

8.5.3 Solid and liquid waste management

Solid waste management in Upanga was relatively well done because of few commercial and informal activities which, in most cases, generate a lot of refuse. More waste in the neighbourhood was generated from households and every household was responsible to manage its refuse including taking garbage to community garbage collection points as well as paying the required charges. Hence it was difficult to find solid wastes haphazardly dumped along streets. A study conducted in the area in 2006 revealed that solid waste management was not a big problem in the settlement. During this time, 86% of all residents were aware of health hazards and could afford paying garbage collection fee (URT, 2006: 47). The report further noted that whilst households managed their wastes, the collection system by contractors was ineffective due to weak organizational structure, inadequate waste handling equipment and lack of garbage collection technical skills.

As far as liquid waste management is concerned, it was found that new housing redevelopment processes have led to high sewerage volumes that the available infrastructure (central sewer) existed since 1940s cannot effectively handle. Also, major infrastructure rehabilitation programmes have not been in place for quite some time. As a reaction to this situation, ten out of thirteen developers use on-site disposal facilities e.g. the use of septic tanks and soak away pits as sub-standard options for collection, transportation and treatment of liquid wastes. Three out of thirteen developers were connected to the central sewer. These results were almost similar to those of the study conducted in 2006. The results of the 2006 study revealed that on-site disposal facilities in the area accounted for about 80% while 20% aligned with the conventional sewage facilities (URT, 2006: 50).

8.6 Summary of major findings

Land use change and densification processes are on-going and still at infancy stage. Although the Upanga redevelopment plan (2006-2026) proposed 25.3% of land for commercial/residential use, the study found out that 67.7% of building projects were residential than 19.4% which were commercial cum residential. These figures portray that the settlement is still a residential area with changing building layouts and forms (from low-rise to high-rise buildings). Resulting from the conversion of land use, high population and housing densities of 888 persons/hectare and 40 dwellings/hectare have been observed in the settlement.

However, with exception of public and private-public joint venture building projects, the rest have depicted wide deviation from prescribed planning rules and space standards. The main cause of the variation remains the scramble to optimize on utilization of building land with expectations of producing more housing spaces; in turn, increase profit through selling or renting out the units. As a result, excessive building heights up to 25 storeys as opposed to 20 recommended storeys and high plot coverages up to 88% contrary to 50-70%. Equally, floor area ratios of 6.0 to 11.0, instead of the allowable 4.0, are occurring. Such observed site development standards occur at the expense of important public rights such as parking, recreational spaces, adequate ventilation and air circulation. Ultimately, these practices have contributed to the creation of poor living and dysfunctional urban neighbourhoods i.e. with too narrow streets and poor street definition.

Chapters five through eight have presented the empirical findings in which the main themes from both cases have been earmarked. In the following chapter, a detailed discussion on individual theme is made.

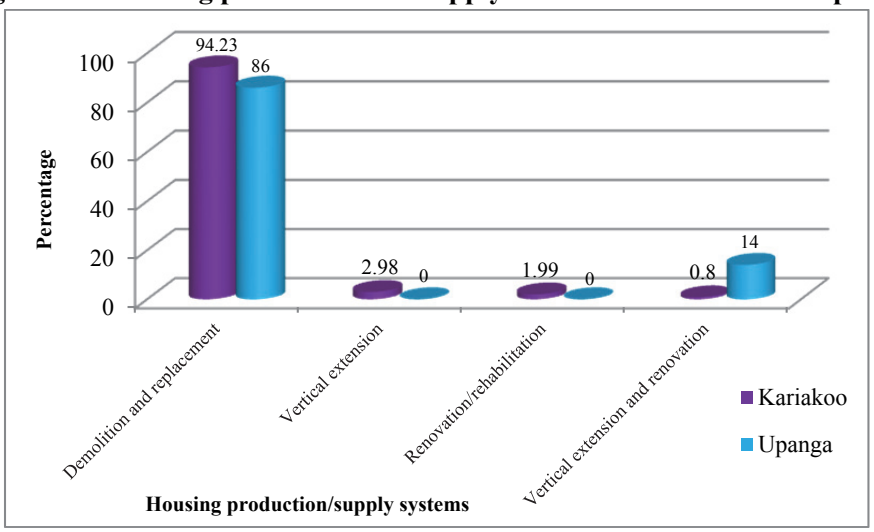
9 CROSS-CASE SCRUTINY FOR KARIAKOO AND UPANGA

In the previous chapters I examined and discussed the housing production dynamics and the market environment in the two case study areas. I also illustrated what happens within individual plots and at street level as outcomes from the struggle to optimise plot space. In this chapter I bring forth these patterns altogether by making comparisons, drawing similarities and contrasts from the cases. This is done with reference to the research questions outlined in the first chapter.

9.1 Housing production versus technological considerations

The analysis has shown that demolition of the traditional single and two to three storey buildings and replacement with high-rise buildings exceeding five storeys dominates in both cases as Figure 9.1 illustrates. In Kariakoo, 94% of housing units and 86% in Upanga are produced and supplied in this way. In most cases, developers demolish the former single or 2-3 storey residential buildings and construct high-rise multi-storey commercial-residential buildings. As vertical extension and renovation or rehabilitation are seen as means of producing and supplying built-up space, mostly carried out by small-scale developers in Kariakoo, they were non-existent in Upanga. Yet, 8.9% of housing units produced in Kariakoo and Upanga were done through vertical extension and renovation. In this case, floors were added while the uses of those already built buildings are being altered e.g. from residential to institutional or commercial use. Only 1% of housing units are produced through rehabilitation.

Figure 9.1: Housing production and supply means in Kariakoo and Upanga



Source: Own illustration from field data, 2014

Besides results from registered building projects which are generally of large-scale, there was small-scale housing space production in both cases. They include infill development which involves adding small structures within developed residential plots. In Upanga, house owners added small buildings along the solid fences for rental purposes. Plots where this was apparent are those located along arterial roads and near health facilities. Such small buildings were mainly used as medical stores, pharmacies and coffin outlets, shops, etc. (cf. Figure 7.4). This approach of producing and supplying housing units was similar to the addition of small structures along the facades of main buildings that was dominant in Kariakoo (cf. Figure 5.7). Some structures

produced in Kariakoo were constructed with temporal as well as permanent building materials and mainly used for small businesses most of which were informal in nature. Other common housing space production systems in Kariakoo included horizontal extension and alteration (cf. Figure 5.6). Interviews with urban professionals revealed that these practices are not allowed by urban planning and development authorities as they are against urban development requirements and regulations.

In chapters five and seven a discussion on housing production with respect to developers, contractors employed and technological aspects was held. It was established that housing (re)development by a certain type of developers is closely related to type and class of contractors. In Kariakoo, where small and medium-scale developers are the majority, informal (local artisans), and small and medium class contractors play a big role in building construction. Mwaiselage (1992) cited in Mlinga (2001: 90-91) categorises informal contractors' operation in three different systems. First are contractors having their own gangs and able to undertake a number of operations on a construction site, like excavation, masonry works and in some cases undertaking construction of a complete building. The second system involves contractors who specialise in certain jobs like concreting, formwork fixing, steel fixing, etc. The third refers to those who possess certain skills and can undertake jobs limited to their area of skills such as roofing, plumbing, tiling, etc. In this case, the contractor executes the work himself and only hires a limited number of people to assist when there is a need. In all the three categories the contractor, on securing a job, assembles gangs of skilled and unskilled labour to carry out the work within the agreed time frame. The client makes payment to the contractor who [the contractor] also pays his own gang.

In most cases, informal, small and some medium-size contractors use labour-based technology. Although many scholars [e.g. Alder, 1995; Tipple and Korboe, 1998] have appraised the contribution of informal contractors to the construction and provision of housing for the urban population in informal housing in most countries and cities of developing economies, they still carry out formal housing construction as well. Study results have shown that small and medium-scale developers in both cases comprised 53.9% of all developers whereby in Kariakoo they made 78.2% of all developers and they usually employed local artisans, Class IV, V, VI and VII contractors. As a consequence of relying on this technology, most buildings in Kariakoo were reported to have serious structural flaws some of which have collapsed and constituted threat to life.

Capital-intensive technology was more dominant in Upanga whereby 72.5% of all developers as opposed to 21.8% in Kariakoo were large-scale. In Upanga, the study witnessed the use of modern equipment such as concrete mixers, cranes, props, building ladders (*majukwaa*), etc. During the interviews, house developers also asserted that they used modern construction technology and finishing. Contractors involved in the construction activities were Class I, II and III (mainly foreign contractors). However, the engagement of local artisans as daily wage workers under the supervision of main contractors was a common practice in Kariakoo and Upanga.

9.2 Pull factors towards housing production and supply

In both cases market forces (high demand), location and changes in government plans were the factors that motivated house developers to produce housing units. Empirical findings further revealed that 11 out of 13 house developers invested in Upanga because of higher demand for residential apartments as well as its prime location including proximity to CBD and Kariakoo. In Kariakoo, all 20 respondents said they opted for investment in the area because of higher demand

for commercial spaces and its strategic location as a commercial hub. High demand for housing units as a driving factor for developers to engage in real estate activities in the study areas is more or less similar to what attracts real estate investors in the country. Kongela (2013: 152), in the context of real estate development in Tanzania on what she terms aspects attractive to the real estate developer, observes that among seven aspects investigated, strong demand for property type had the highest frequency of 14 or 70% followed closely by long-term and regular income flow with a frequency of ten.

Nevertheless, the difference in the two cases relied on the nature and characteristics of the areas. In Kariakoo, the intensification of commercial activities has resulted into high demand for commercial than residential units. In contrast, Upanga has relatively remained a residential area and hence more demand for residential than commercial units. The main indicators in Kariakoo were pre-letting practices and occupation of ground floor commercial spaces even before buildings were completed. In this case, owners receive early offers from expected tenants just when the sign boards are placed on construction sites. On the other hand, pre-sale practices of residential apartments were more vibrant in Upanga than in Kariakoo. In Upanga, almost all residential spaces were rented out within less than six months after the completion of the building. In Kariakoo, residential apartments were rented within a range of six months or more; some may remain vacant for a long period.

In both cases developers did not consider changes in government plans as a critical factor. In this case, only eight out of 33 house developers in both cases (six out of twenty in Kariakoo and two out of thirteen in Upanga) were aware of the existing redevelopment schemes of the two settlements. These findings suggest that many developers do not comply with development conditions inter alia because of not being aware of the contents and details of the area specific redevelopment plans.

9.3 Strategies and linkages of house developers

9.3.1 Housing space production strategies

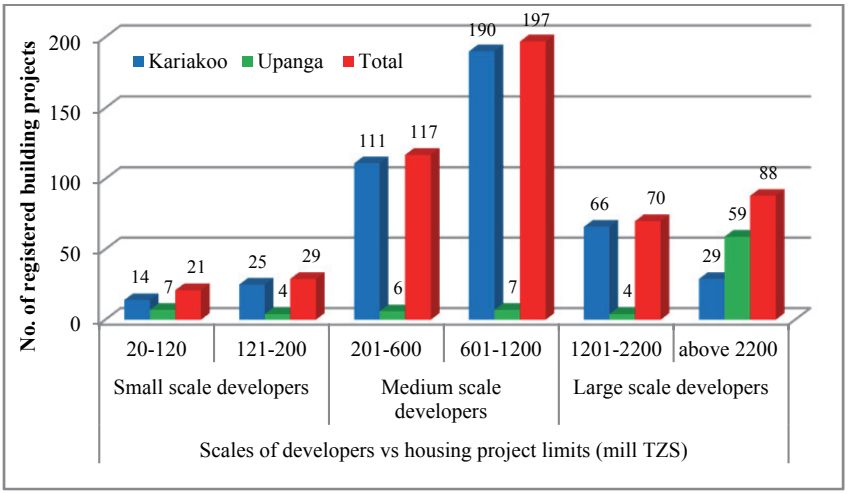
As a livelihood strategy

Figure 9.2 compares the types of building projects carried out and the subsequent categories of house developers in the two cases. Also, in both cases small-scale developers were the minority (9% and 12.6% of all developers in Kariakoo and Upanga respectively). Housing spaces produced by the majority of such developers were through horizontal extension, addition of one floor on the existing building, renovation and rehabilitation of original single storey traditional houses for both residential and commercial use. In this work I refer to them as "subsistence developers" as they largely depend on income generated through renting to meet their basic needs. The findings have also shown that this group produces housing units through a build-and-operate arrangement and more preference is on renting than selling out. Hence, they consider renting as a commercial undertaking (see also UN-Habitat, 2003: 68). Kumar (1996) and UN-Habitat (2003: 68-71) term such developers "subsistence landlords".

As shown in Figure 9.2, building projects carried out by such developers were valued between TZS 20 million and TZS 200 million (US$ 12,500 and 125,000) mainly generated from own savings and borrowing from informal and formal financial institutions. Owing to financial limitations, building development is usually carried out in phases [progressively] depending on the availability of fund. Moreover, the majority of these developers were original land occupiers

or house owners mostly originating from coastal Regions i.e. Dar es Salaam, Coast and Morogoro while the minority are migrant ethnic groups.

Figure 9.2: Building projects vs developers in Upanga and Kariakoo (2006-2014)



Source: Own illustration from field data, 2014

As a life quality improvement strategy

The study in the two neighbourhoods also indicated that housing production by medium-scale developers (69.2% in Kariakoo and 14.9% in Upanga) is a strategy towards improving the quality of life. By converting single storey to multi-storey buildings through vertical extension and/or demolishing-and-rebuilding, the housing spaces produced were rented out and the rent collected was being injected in other investments in order to improve owners' quality of life. Building projects undertaken in this group had values ranging from TZS 201 to 1,200 million (US$ 131,250-750,000) and they were built on plots bought from original land occupiers.

Field results revealed, for example, that medium-scale developers in both cases rented out residential and commercial spaces and the earnings were used to redevelop other buildings within or in the surrounding areas. Developers used the earnings to establish and run business in one commercial space in the ground floor as well. A housing production biography of Mr. X discussed in chapter six provides another good example of developers who have adopted this strategy. It was also vivid that developers who adopted this strategy were constrained with capital particularly mortgage finance from financial institutions despite attractive provision in the Mortgage Finance Act No.16 (2009). The Act inter alia aims to accelerate housing development through mortgage finance by banks providing long-term loans for housing production and supply. In reality, majority of financial institutions especially banks provided up to TZS 500 million only (US$ 238,095) the amount which, basing on the current land prices in the two settlements, is even not sufficient to buy land.

As a capital expansion/reproduction strategy

This strategy was mainly adopted by large-scale developers who own or construct more than one high-rise building; often spending billions of shillings i.e. beyond TZS 1.2 billion (US$ 750,000). Reference can be made to developers of foreign origins such as developers A, K, S and Mr. Y's housing production biography. After they have constructed they may outright sell or maintain the landed properties by renting out individual housing units or apartments through a build and transfer arrangement when buildings are completed. Later on, they embark on new building

projects in other potential areas with reasons of avoiding rent default and management related risks. In a similar finding to this, UN-Habitat (2003: 88) cautions that in central and prime areas of cities most landlords prefer selling out their apartments because of hardships in rent control regimes. In Kariakoo this group comprised 21.8% of which, 93.3% fell under medium-large scale category and the rest 6.7% were large-scale developers or 30.6% of all developers in the settlement. Conversely, the majority (72.4%) of house developers in Upanga were large-scale followed by medium-scale developers by nearly 15%. Moreover, within the large-scale developers' group, 32.2% were middle-large and the remaining 67.8% or 93.7% of all developers were large-scale.

Therefore, this group of developers follows tenets of real property professional practice. Moreover, this strategy seems to be the impacts of the Unit Titles Act No.16 (2008) which encourages real estate development especially high-rise multi-family buildings and co-ownership. The same strategy was applicable to buyers who become landlords after buying flats from developers. In this respect, having bought apartments in the newly (re)constructed high-rise buildings, they rent out to willing tenants since such units are often secondary or tertiary properties or assets.

9.3.2 Linkages among developers and housing (re)production

> *"The construction and transformation processes are linked to household assets available at one particular time"* (Sheuya, 2004: 171).

The above quote holds truth at any level of building construction although in that context Sheuya made the statement with reference to a small-scale housing production and supply in the informal housing sub-market. As it has been discussed earlier, housing units produced and supplied through this market segment are generally characterised by low quality implying that majority of developers are also the urban poor. Similarly, issues related to access to land and housing finance largely depend on self-financing mechanisms and the use of household or community assets including household members and low-paid labour during housing construction. In other words, housing production in the informal sector largely involves local linkages at a family, neighbourhood and community level. But in the segment of formal housing market in which the two cases studied fall, I consider both local and international linkages as important ingredients which foster housing production and supply. Because of the scale of housing projects in the prime areas, it is not only sufficient to adopt traditional mechanisms as applied in the informal housing market. In such cases, extended networks become inevitable in realizing housing outcomes. Generally, I argue that flows of international capital and networks of individual and institutional actors in the construction industry are important urban housing space production options.

Local linkages

Basing on the size and cost of housing projects carried out in the two cases, small- and medium-scale developers in Kariakoo were more linked to the local environment than those in Upanga. The strong social ties among different ethnic groups support this argument. In this aspect, study results established that in most cases, small and medium developers particularly used friends or relatives with strong economic base as referees to acquire housing loans from available financial institutions. Others borrowed from their siblings, friends or relatives under mutual agreements. The Kariakoo case provides more evidence that, with exception of housing units for sale, the

majority of house developers rented out commercial spaces to willing renters mainly from among their ethnicity.

Nonetheless, small and medium house developers were registered members in local financial associations or groups namely SACCOS e.g. Lumumba SACCOS and informal social security systems commonly known as UPATU. UPATU associations are informal in nature, based on mutual trust (social capital) and mainly comprising women and the urban poor. Hence, they do not have written rules which make it difficult to take legal actions when a member defaults.

International linkages

The analyses of the data also revealed that some house developers in both study areas had connections with their siblings who migrated to other countries and in turn sending back some money in form of remittances. Other developers of foreign origins mobilized cash from their countries of origin as loans or mortgage finance; or from relatives. In the light of international connections, Kabur (2004: 1) adds that remittances have been growing in absolute and relative volumes to other sources of external finance for developing countries. World Bank (2006) observes that remittances constitute the second-largest source of foreign financial flows to developing countries after Foreign Direct Investment (FDI). Other studies have published the motivations, roles and impacts of remittances. For instance, Ulku (2012), in the study on Turkish migrants in Germany and in other developing and less developed countries, argues that remittances are frequently used in poverty alleviation, promotion of human and physical capital accumulation, economic growth and income-generating activities.

Very specific to housing production, studies by Lambert et al. (2002) on Sierra Leone migrants in Dominica, and Kabur (2004) on Botswana migrants outline the role of remittances as achieving goals of portfolio diversification to include land and housing purchase, and provision of liquidity for small enterprises (in the absence of well-functioning credit markets) to meet expenditures. Maimbo (2006) acknowledges that remittances provided by the Somalis diaspora living in Sweden, Norway and Finland were largely used by survivors on housing in the conflict affected areas of Somalia. Recently, Aslam (2015: 155-162) notes that maximum share of the sent remittances by the Pakistanis immigrants living in Germany were directed in the local housing market/sector.

The analyses of the data of this study from different sources also revealed clear evidence that some house developers received monetary assistance in terms of remittances and mortgage finance from abroad. An elaborate and clear example is that of the Zanzibaris who fall in the categories of small and medium-scale developers. Results explicitly demonstrated that most buildings owned or being constructed by people from the Isles particularly in Kariakoo were financed by migrants living in the UAE oil producing countries (see also Kombe, 1995; Saleh, 2006). The motivations of migrants to remit were dependent on their intensions: either to return to their countries of origin or remain in countries of migration. On the one hand, those who remit with intension to return aimed at making housing investments to help them sustain new life in their countries of origin upon their return. On the other hand, those who do not intend to return remit on charity basis particularly because of having close family members or with strong social ties in their home countries.

This was not the case for large-scale house developers of foreign origins who received mortgage finance or housing loans from their countries of origin. House developers originating e.g. from India, China and Saudi Arabia who fall in the large-scale developers category, besides

using their accumulated savings and profits from other real estate projects, housing production and supply were manifestations of a variety of transnational social and spatial relations. In this regard, they received cash to finance building projects from their countries of origins (see also URT, 2006: 4; Owens, 2012). This is not only due to the fact that mortgage finance particularly for large-scale and foreign real estate developers has not been given priority in Tanzania, but the existing mortgage ceilings provided by few existing financial institutions do not match the costs required to undertake building projects by large-scale developers.

Concluding remark

Formal financial institutions, banks in this context, provide limited capital for the housing market. Suppliers needed money that they commonly do not own in full. Therefore, as the capital suppliers, financial institutions are indispensable for the urban housing market. Harvey (1982, 1985) argues that various financial institutions provide paths of capital flow through which surplus generated in the primary sector is directed to the built-environment. However, since capital is always profit-oriented and the opportunities of investment are differentiated over the urban area and individuals, financial institutions adopt spatially and ethnically discriminating lending practices that have a significant impact on the urban landscape. This leads to easy access to mortgages by the minority population of developers while majority groups often cannot. This scenario was apparent in the study areas since small and medium-scale developers hardly get small and soft loans sufficient for horizontal extension, rehabilitation or renovation because of stringent conditions set by formal financial institutions. This kind of practice, as Pacione (2001) argues, is usually referred to as red-lining. Owing to this, small and medium-scale developers largely rely on own savings and informal financial institutions while foreign developers and those of foreign origins rely on international financial markets.

9.4 Amount and quality of housing

Typical residential apartments produced in Kariakoo have gross floor areas of 80-108m^2 and are generally two to three bedrooms with room size ranging between 12 and 20m^2, while commercial spaces are between six and 16m^2. In terms of housing service provision, 80% of house developers supplied apartments with fittings only whereas 20% provided both fittings and furniture/appliances. Generally, technical and social infrastructures like water and electric supply, roads and sanitation systems were insufficient and outdated in the settlement. In Upanga, residential apartments had two to five bedrooms, with gross floor areas between 160 and 214m^2. Also, majority of house developers often offer full serviced apartments (furniture and fittings) but social infrastructure services such as water supply and sanitation systems were moderately available. The findings have also shown that each new building provide a minimum of three storeys and six apartments for low-rise buildings while the number increases up to 25 storeys and over 30 apartments for high-rise buildings.

Regarding the quality of buildings supplied in Kariakoo and Upanga, analyses have shown that almost 9% of buildings in Kariakoo are of low quality, 69% average quality and the remaining 22% are high quality structures. Mlinga (2001: 174) and Magina (2010: 23) note that the reason for the low and average quality include persistence tendency to not to enforce statutory requirements by responsible authorities, and the use of poor quality building materials and workmanship by small and medium-scale contractors. This is the trend particularly in Kariakoo and it was claimed to be a source of completed high-rise and under-construction buildings

collapse cases leading to deaths and injuries.[96] Parallel to low quality as the main factor, other major ones include disregard building regulations particularly building beyond the number of storeys approved in the plans and corruption among officials involved in land use development control. In January 2015, similar events were also reported in redevelopment of Huruma, Umoja and Makongeni inner-city neighbourhoods of Nairobi.[97] Responses from urban professionals, house developers and author's analyses confirmed that the majority of buildings in Upanga are built using high technology and the quality of finishing was also quite good. The use of concrete mixers and cranes in different large-scale building construction sites was apparent, suggesting development of high classes of contractors in many projects.

9.5 Implication of the results to the real estate sector in the country

Figure 9.2 shows that in both cases, medium-scale developers constructed more buildings (60.2%) than large and low-scale developers who built 30.2% and 9.6% respectively. This observation might be misleading when considering the quantity of housing units, in terms of number of storeys and apartments, produced and supplied by each group. Although the analysis noted that only 30.2% of all building projects in both settlements were large-scale; in reality, more housing units were produced and supplied by this group than the rest. Basing on results from previous chapters, developers in this group such as foreign real estate companies, joint ventures and foreign developers undertook huge building projects (above ten storeys) each building adding as many as 30 apartments in the market. For instance, as noted earlier, Owens (2012: 1) observes that 40 high-rise buildings, which had been constructed in Upanga by 2012, added 2,000 units. This indicates that 50 units were produced from a single high-rise building on average. The same trend also applies in Kariakoo as high-rise buildings, exceeding ten storeys, have remarkably increased in the settlement. This implies that real estate sector particularly the involvement of the private sector and Foreign Real Estate Investment (FREI) is growing. The results also show the benefits of the Unit Titles Act (2008), particularly in facilitating private developers to construct, sell and transfer units to buyers. Above all, the net addition of housing units to the market may partly reduce the urban housing backlog in the city.

The study has also shown that a foreign-local joint venture arrangement is being adopted in both cases as a result of land tenure systems and the prevailing formal land provision and delivery to foreign investors which is not yet clearly stated in urban areas. In Tanzania, foreign investors can access land through Tanzania Investment Centre (TIC). But responses from TIC official on access to land by foreign investors revealed that in most cases they have mainly been successful on the delivery of land for agricultural use; not for real estate (building) development in urban areas.[98] Therefore, one of the reasons that drive foreign investors opt for joint ventures with local real estate developers is to ensure easy access to land.

9.6 The land and housing markets

9.6.1 Land market

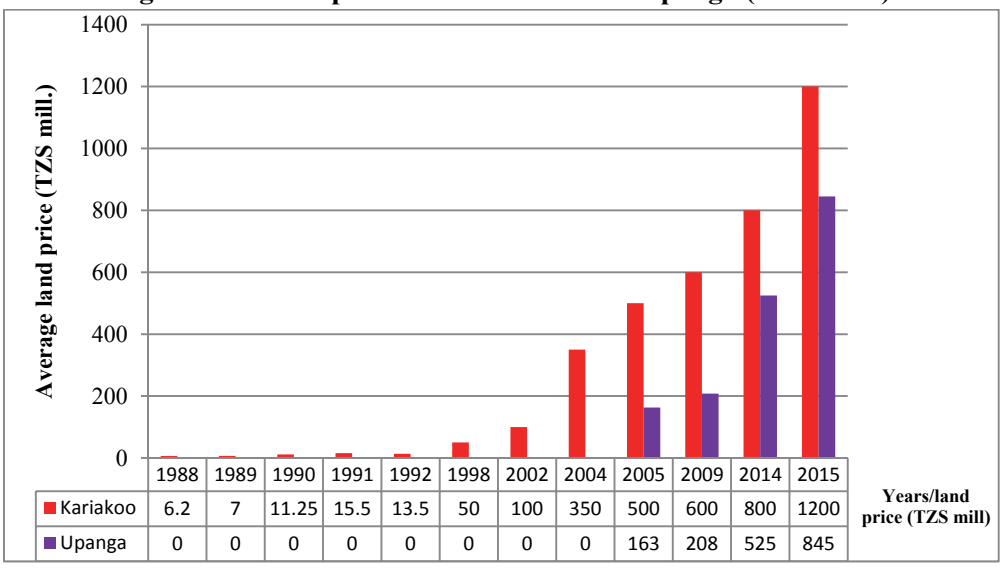
Because of land commodification and lack of land market regulatory framework, land prices both in Kariakoo and Upanga have been shooting over years due to the strategic locations of the two areas in the urban continuum. As shown in Figure 9.3, both settlements have experienced

[96] http://uk.reuters.com/article/2013/04/01/uk-tanzania-collapse-idUKBRE93004F20130401
[97] http://www.dailymail.co.uk/wires/afp/article-2896534/At-one-dead-Nairobi-high-rise-building-collapse.html
[98] Interview with TIC research officer, Kivukoni area, February 14, 2014

doubling or tripling of land prices. It is also evident from the figure that land price started to shoot up in Kariakoo in the late 1990s, a period when redevelopment in the form of apartment blocks started to replace traditional Swahili houses. The same trend was noted in Upanga from 2004/5 when the area started to transform from two to three storeys to high-rise multi-storey building structures. Based on the 2014/15 prices, for example, the land price in Kariakoo, which has attained a saturated transformation stage, was higher than in Upanga, which is in the transition transformation stage. In this regard, the selling price for 250m^2 plot size in Kariakoo had reached TZS 1.2 billion (US$ 750,000). Moreover, the price per square meter in the tertiary, secondary and prime streets of Kariakoo was TZS 2.4, 3.2 and 4.0 million (US$ 1,500; 2,000 and 2,500 respectively). In Upanga in which most residential plots measure is 600m^2 while bigger ones measure up to 2,500m^2, the selling price were between US$ 0.7 and 2.8 million; making the average price per square meter of TZS 1.8 and 1.9 million (US$ 1,100 and 1,200 respectively).

However, from these statistics it may be seen that land is more expensive in Upanga than in Kariakoo. But if the prices for Upanga were converted according to the average plot size in Kariakoo it may be deduced that a residential plot of 250m^2 size in Upanga was being sold at TZS 467 million (US$ 291,875). Plots for office blocks and commercial activities of similar sizes were being sold at between TZS 525 and 845 million (US$ 328,125 and 528,125) as shown in Figure 9.3. The difference in price in the two settlements is due to the fact that Kariakoo has transformed into a commercial business zone and developers are struggling to acquire as much land as necessary for investment. Above all, these prices are subject to increase because of high demands for housing and other investments. Also weak or ineffective government mechanisms to regulate land markets i.e. failure to apply fiscal instruments (impose tax on land) compound the problem. The results further show that real estate development has much influence on land value (see also Nakatudde, 2010: 46). Therefore, rapid increase in land prices is spiced by market pressures, location aspects (near the CBD), and their connectivity to other areas in the City.

Figure 9.3: Land prices for Kariakoo and Upanga (1988-2015)



	1988	1989	1990	1991	1992	1998	2002	2004	2005	2009	2014	2015
Kariakoo	6.2	7	11.25	15.5	13.5	50	100	350	500	600	800	1200
Upanga	0	0	0	0	0	0	0	0	163	208	525	845

Source: Own illustration from field data, 2014

On the aspect of land market regulatory instruments for equitable access and delivery, Mosha (2012: 113) indicates that land is one of the most basic resources for development as it provides physical space for housing development. Otubu (2009) opines that the importance of land to the

provision of adequate housing cannot be overemphasized. He stresses that the relationship between housing delivery, availability of land, affordability (price) and accessibility is enhanced by the policy framework available in a specific country. Moreover, Dowall and Clark (1996: 5) in the study on the need for land reform add that the land policy must, among other things, provide for access to land and control land speculation as well as land inflation.

Related to the scramble for land and transactions in Kariakoo is the emergence of deceitful deals by agents (see also Kombe, 1995). During interviews it was further noted that deceitful deals were not only associated with agents involved in land deals but also with sellers, buyers and lawyers directly or indirectly involved in the land transaction and land transfer processes. During land transfer, efforts are made by all parties to avoid tax. This is achieved by producing counterfeit selling agreement forms with reduced selling prices so as to avoid stamp duty fee of 10% or 20% payable to the Tanzania Revenue Authority (TRA) as the government revenue. Secondly, agents or brokers inflate land price in order to get 10% commission from each deal concluded. The other common type of deals played by brokers and non-land occupiers is the act of devoting themselves in selling land which they don't own. Owing to this, land occupiers have inscribed on house walls to caution land seekers from buying land which is not sold or that which is being sold but does not belong to those claiming to be land sellers. A combination of these factors together with unclear transaction and lack of information on land markets and transparency in the deals make the land market in Kariakoo ineffective and highly imperfect. These issues were neither observed by the author nor mentioned by developers in Upanga.

The two settlements also lack other attributes which contribute to land price increase such as social infrastructure services as Cadman and Austin-Crowe (1991), Smith (1993) and Archer et al. (1996) claim. This leads to the observation that if provision of service was coping with the high rate of building transformation, land prices would be far higher.

9.6.2 Housing costs and affordability

Recent studies have shown that Dar es Salaam city is leading in terms of rental prices and rent in East and Central African metropolitan cities. In 2014, monthly rents in the two study areas were between US$ 800 and 1,200 in Kariakoo, and between US$ 1,000 and 2,200 in Upanga. Likewise, while the apartment price per unit ranged from US$ 85,000 to 150,000 depending on the size (number of bedrooms) and location in Kariakoo, the majority of residential apartments in Upanga were sold at US$ 210,000 and 370,000. From these figures it can be seen that the prices and rents in the two settlements do not differ much from those for expensive inner neighbourhoods. As far as rents for residential apartments in the most expensive inner-city and prime locations of Dar es Salaam are concerned, a local newspaper[99] as per interview with Knight Frank (T) Manager in 2013 provides statistics. It shows that in 2012, a family apartment with three bedrooms in the inner-city posh neighbourhoods such as Oysterbay and Masaki was rented between US$ 3,500 and 8,000 per month depending on the location and quality of the apartment. The same apartment would be rented at a maximum of US$ 5,000 in Nairobi, US$ 4,500 in Kampala and US$ 4,000 in Kigali.

On the other hand, past studies in selected African cities showed the same trend as Dar es Salaam was among the cities with high rents for residential space. Rothenberger (2010: 104) notes that between 2004 and 2005, the majority of two bedroom flats normally received monthly

[99] The Guardian Newspaper, March 03, 2013; available at *http://www.ippmedia.com/frontend/?l=51859*

net rents ranging between US$ 800 and 2,000 whereas rent for three bedroom flats was between US$ 1,000 and 2,500 per month. Most large houses with four to six bedrooms were rented at US$ 1,500 to 3,000. Kongela (2013: 115) observes that apart from the so called expensive African cities such as Luanda (Angola), Kinshasa (DRC) and Lagos (Nigeria) in which oil and gold production are conspicuous, Tanzania was among the countries with high rents for residential and office space. According to her, in 2011 monthly rent for a residential apartment in Dar es Salaam stood at US$ 7,000 while it was US$ 4,000 in Nairobi and Accra, US$ 4,500 in Kampala, US$ 2,500 in Kigali and US$ 5,500 in Johannesburg. Other comparisons can be made from Table 9.1 below.

Table 9.1: Average monthly rental charges in selected African countries/cities (2011)

Housing use Vs monthly rent (US$)	Algeria	Angola	Botswana	Chad	DRC	Ghana	Kenya	Namibia	Nigeria	Rwanda	South Africa	Tanzania	Uganda	Zambia
Office (/m^2)	40	150	16.5	30	45	30	10	16	70	15	21	20	17	20
Retail (/m^2)	55	100	30	35	35	40	31	35	45	25	40	16	28	35
Residential (,000)	4.5	20	2	4.5	8	4	4	2.5	11.5	2.5	5.5	7	4.5	3

Source: Kongela, 2013: 115 with modifications by the author

This study has also established that rents for commercial spaces and office spaces commanded high rents in Kariakoo than in Upanga. For example, in the prime streets of Kariakoo, a commercial space with a gross floor area of $16m^2$ was being rented out for between US$ 23 and 31 and US$ 12 to 20 per square meter per month in other streets. In Upanga the monthly rent per square meter was between US$ 20 and 21. In the past, between 2003 and 2007; a high quality office space (grade A) in Dar es Salaam achieved a maximum net rent of US$ 20 per square meter per month. On average, net rents for high-standard office accommodation ranged from US$ 16 to 19 per square metre per month. For grade B office space net rents were between US$ 12 and 14 per square metre per month while low office grades fetched net rents between USD 8 and 10 per square metre per month. Real estate experts assume that with expected new office space developments, especially in Dar es Salaam, occupancy levels would slightly fall and so would monthly rents for prime office space be stabilised at approximately US$ 15 per square metre per month (Rothenberger, 2010: 104). However, findings of this study have revealed a sharp increase in rents in high-grade areas in Dar es Salaam. They stood at US$ 21 per square meter per month, while in Kampala and Nairobi it was US$ 17 and 15 per square meter respectively.

Regarding affordability levels in prime locations of Dar es Salaam, Rothenberger (2010: 104) cautions that the top end of the residential real estate market is sufficiently small enough for some properties to be able to charge US$ 4,000 and above per month. Owens (2012: 15) argues that NHC's move away from subsidized housing towards partnership in high-end or commercialized housing without considering the needs of the low and middle income individuals, who were its former customers in Upanga, automatically expels them away. The displacement is caused by increasing house prices and rents. Equally, Felbermair (2012: 111) also concludes that rents in Kariakoo were too high because of high income people operating in the area. Recently, Kongela (2013: 115-116) also observes that the value of land and property in Dar es Salaam was reaching unprecedented heights, the argument which is still valid in this research.

About affordability per capital income, URT (2009: 7) reports that in 2007, a highly poor household earned an average monthly income of TZS 125,135 or US$ 78. The employment and earnings surveys show that in 2012, only 2.9% of employees in the public and private sector received a monthly wage of above TZS 1.5 million (US$938). 21.9% got between TZS 500,001 and 1.5 million (US$ 313 and 938), while the majority (75.2%) earned between TZS 65,000 and 500,000 or US$ 41 and 188 (URT, 2013: 32). In 2012/2013, the wage rates were 3.7% for those who got the highest wage, 26.3% who received the medium wage and 70% who earned the lowest wage (URT, 2014: 33). Similarly, the 2013/2014 government salary scales demonstrate that professionals, graduates with bachelor and master degrees receive gross salaries ranging between TZS 410,000 and 989,500 (US$ 256 and 618). Those who receive TZS one to 5.58 million (US$ 625 to 3,488 resp.) are senior government and private sector employees. Those with elementary and secondary education receive were paid TZS 410,000. Table 9.2 summarises the above discussion and provides a base for the conclusion about affordability levels in the two redeveloping settlements.

Table 9.2: Housing prices, rents and affordability levels for the period of 2013-2015

Settlement	Particulars	Price/rent, income (US$) No. of bedrooms		
		2	3	4/5
Kariakoo	Apartment price	87,500	105,000	-
	Apartment rent/month	675-750	900-1,200	-
	Commercial space rent/month	Tertiary streets	Secondary streets	Prime streets
		188	313	438
Upanga	Apartment price	215,000	250,000	335,000
	Apartment rent/month	1,100-1,600	1,500-2,100	Above 2,200
	Commercial space rent/month		20-21 per m^2	
	Monthly income	Low-income	Middle-income	High-income
		Below 313 (75%)	313-938 (22%)	Above 938 (3%)

Source: Own illustration from field data, 2014/15

While large- and the majority medium-scale house developers in Kariakoo demanded upfront payments for a minimum of 12 months for residential apartments per lease agreement, similarly developers in Upanga asked a minimum of 12 months' rent for both residential and commercial spaces. Rents for commercial spaces in Kariakoo were upfront paid at a minimum of one and a maximum of three years. On paying the price for residential apartments on sale, all cases depicted the same trend i.e. buyers to pay 100% of price or 50% down payment, with an allowance to pay the balance within a period of six months in one or several instalments. With these realities it is obvious that salaried persons without other sources of income (e.g. loans) cannot afford buying or renting a residential apartment or commercial space for rental or ownership in Kariakoo and Upanga (cf. Table 9.2).

The above arguments and results summarised in Table 9.2 show that prices and rents of the emerging housing spaces in inner-city neighbourhoods cannot be afforded by the middle and low-income individuals or households. Only the emerging upper middle class and the affluent households with the purchasing power parity of US$ 10-20 and above US$ 20 respectively can afford. This observation supports results from recent studies which show that 74% and in many cases over 90% of the urban population in most large and small urban settlements in Tanzania live in low-income areas because of low and unpredictable incomes (Pauschert et al., 2012: 4).

The statistics further show that persons who solely depend on salaries are not able to access housing in Upanga and Kariakoo. Only a small proportion of senior officials can afford renting and not buying. More recently, the Business Times newspaper basing on the prices of different categories of NHC units notes that a prospective buyer who is an employee needs to have a minimum salary of TZS 15 million (nearly US$ 10,000) to be able to comfortably live after repaying the monthly housing loan (The Business Times, 2016). These findings also support Owens' studies in Upanga as discussed in chapter seven.

9.7 The involvement of real estate agents/brokers

In this study it has been noted that majority of developers, particularly real estate companies and those of foreign origins, use registered real estate agents to advertise housing units to buyers and renters. In Upanga, the role of informal brokers has been low and unpredictable. On the contrary, their role in facilitating land/house transactions and disseminating information on available vacant residential and commercial spaces for renting is still recognised in Kariakoo. The presence of brokers in Kariakoo has frequently been associated with inflated land/property. The inflated prices are partly a result of the lack of the land/housing market information system in rapidly growing cities. Therefore, brokers, land/house sellers and landlords seem to grab loop hole as an opportunity to inflate price for speculative profits.

In conclusion, the study still reveals real estate agents being a bridge between buyers/renters and sellers of housing units as their most important role. They also usually actively assist with and facilitate property transfers because their revenues come from the fees charged on completed property transactions. Owing to this, real estate agents, together with some few speculative developers, also contribute to patterns of residential segregation. Through deliberate racial and ethnic steering, they have influenced the social decomposition of the neighbourhoods by attracting affluent households and individuals to redeveloping Upanga and Kariakoo.

9.8 The pace of redevelopment vs public services provision

Literature does not only provide that services play a critical role in land and housing development. Availability of basic services attracts both suppliers and customers (Grimes, 1976; Strassmann, 1982; IHS, 1993; Ling and Archer, 2010). Basic infrastructure services such as access routes, electricity and water supply, liquid and solid waste management systems, parking and recreational open spaces are critical. Also, in land and housing market, infrastructure services together with housing features are useful determinants of price and rent (Bowen et al., 2001). Therefore, areas with better infrastructure services overall fetch higher rents and prices than those with little or no services. In practice, the new Kariakoo and Upanga as inner-city neighbourhoods redevelop within the compact city, urban revitalization, regeneration or gentrification concepts whose aim is to optimally use inner-city vertical space, minimize infrastructure provision costs and the use of cars by encouraging walking. These developments, however, require provision of improved infrastructure services.

Findings have revealed that while redevelopment of inner-city neighbourhoods by reconstructing multi-storeys is rapidly taking place, infrastructure services remain old and run down. Before redevelopment in the mid-1990s, the original networks were designed for low-rise (single floor) housing; and the on-going vertical developments require much more effective network. For instance, Owens (2012: 14) observes less than 1% of infrastructure services in Upanga area having been improved over the period of 2006-2012 despite the fact that construction of high-rise buildings had already intensified in that period. Past studies in Kariakoo

[e.g. Lupala, 2002; Moshi, 2009; and Mosha and Mosha, 2012] reveal that while the area is undergoing rapid building transformations and population increase, the basic infrastructure services remain the same and unimproved. Field results, as reported in chapter five, have revealed that only Uhuru Road has been undergoing regular maintenance. Part of the same road (from Msimbazi-Uhuru Roads junction to Karume area), together with Msimbazi and part of Morogoro Roads were rehabilitated as part of the Bus Rapid Transit (BRT) project currently being implemented in the city. This contradicts with the proposals made in the redevelopment plans of the two settlements. In the proposals, provision and improvement of infrastructure services were emphasized and plans for implementation were provided.

Overall, basic infrastructure has not been improved to commensurate with the building redevelopment. Lack of separation grades between motorised and non-motorised traffic cut across the two settlements. Also, electricity and water supply are insufficient (regular electricity and water cut offs), broken and uncovered storm and liquid waste pipes leading to leakages, and unmanaged solid wastes are obvious. These altogether, with accumulated refuse and piles of decaying waste, have led to deteriorating environmental quality, health risks and noise. These are typical cases in Kariakoo whereby such deficiencies were observed. Local authorities have also failed to ensure that the private sector provides required services while generating profit. Pelling and Wiser (2009:133) note that despite privatization of solid waste collection, the management capacity of services and public utilities by the government has been overloaded. On the other hand, lack of adequate open spaces for recreation purposes and parking suggest that the current land market and property development is largely driven by private interests.

The above findings tie those of past studies [UNCHS and UNEP, 1999: 141; Olveira and Pochet, 2010: 269] on inner-city environments of Dar es Salaam. They revealed that densification and redevelopment functions are calling for new infrastructure services requirements. Olveira and Pochet discussing Kariakoo argue that the former African area which has experienced significant densification. This exerts great pressure on and demand for water, electricity, liquid and solid waste management.

9.9 The role of the local government in the housing market

The foregoing sections have highlighted that land and housing prices and rents seem to be higher than what the majority can afford. Moreover, local and central governments are not fully playing their roles in regulating the housing market (lack of or weak regulatory framework). As such, private actors in the studied cases are inflating prices and rents making land and housing markets imperfect. Knaap (2004) lists five areas of concern for local governments in making housing sector a well-functioning entity; some of which were not observed in the study areas. According to him, the list includes i) land use planning, ii) land market monitoring, iii) provision of infrastructure for development, iv) regulating land and v) housing development. While land use planning and monitoring role involves urban planning institutions, monitoring of the land market, urban growth and management; regulating land and housing development includes liberalizing land, instituting and implementing housing development regulations. WB (1993) stresses that regulations must be aimed at all players in the housing sector (dwellers, financiers, developers, building materials, businesses). This also requires simplifying their relationships and procedural issues in a way that is sensitive to the economic situation of each actor. However, it cautions that when standard requirements are too high, the cost of building increases as well and very few people are able to reach those standards, particularly the urban poor. From the list, only land use

plans have been prepared but issues related to land market monitoring, provision of infrastructure, and regulating land and housing development were not given priority.

9.10 Densification versus compliance with building standards

The different systems involved in housing production and supply in the two study areas by all developers regardless of their classes and change of building structures and functions are absolutely place-making strategies. As revealed by this study, the ultimate effect is increased densities within individual plots and street reconfiguration. Just as densification, regeneration and gentrification processes are positive as they may create more housing units, non-compliance with building regulations and lack of or poor development control in the course of erecting buildings bring negative effects (also see Pesa Times, 2013). These findings line-up with the fact that the primary goals of developers and market structures are interactively related. While on the one hand, the structure sets the framework for developers and other players; on the other hand, players attempt to reframe the structure in order to maximize their gains (Healey, 1992).

Emanating from the above arguments the study confirmed that in the course of changing use of buildings, developers utilize more of plot space than what is prescribed in the official planning documents. As a result, high densities within individual plots and neighbourhood at large have been attained. With regard to plot setbacks of new high-rise buildings in the two cases, results have demonstrated that majority of developers do not comply with the required standards, as they try to maximize the available spaces. Some of the buildings had their ground floors built according to the guidelines, but violations started from the first floor. From this floor onwards, buildings were extended outward for about one meter making the setbacks adopted to be one meter less than those on ground floors. The Kariakoo case presented another interesting account of violation whereby alternating balconies were introduced on the sides of adjacent buildings so as to provide usable space on each balcony (cf. Figure 6.5).

Generally, whereas guidelines recommended minimum side setbacks of 1.5m; the most frequently adopted by developers was 1.0m or less. While the plan recommends 2.0-3.0m and 2.0m as front and rear limits for Kariakoo, physical setbacks were 1.5m or less and 1.0m respectively. Following the violation, emerging buildings which are tall and slender often referred to as “kissing buildings” because of being too close to each other. Besides variations with respect to specific zones in Upanga, observed side setbacks ranging from 1.0 to 1.5m contrary to those permitted (1.5m to 4.0m). Similar trends were noted on front and rear setbacks (see Table 8.7 and Figure 8.2). Except zones A, D and E which are for public and semi-public use, developers in the remaining zones did not comply with official standards.

Regarding plot coverage, actual setbacks show that plot coverages were high in both settlements. In Kariakoo, actual plot coverages in almost all zones as observed in 17 observation points were between 83.2% and beyond 90%. These exceeded the allowable coverage of 60% - 70% for commercial-residential high-rise buildings. Only few public and public-private joint venture buildings complied with the limits provided in the guidelines. Congruently, low-rise buildings with a maximum of five storeys (the military and institutional areas) in Upanga had plot coverages as those recommended (40%). However, buildings in these zones have not undergone severe conversions and a few, which have been converted, are in line with the regulations. Yet, in plots where original buildings have been rebuilt into high-rise buildings particularly by private developers, plot coverages were between 75% and 88% (c.f. Figures 8.3 and 8.4) as compared to the approved 60%. These results imply that developers use space intended for outdoor activities such overhead infrastructure provision and parking. As a result, overhead infrastructure such as

electricity and telephone wires are congested in small left over spaces between buildings and along streets. In addition, circulation and parking possibilities within plots are limited, leading to on-street parking and prolonged traffic jams.

My own observations on building heights confirm that with few exceptions of zone A for Kariakoo and zones A, D and E for Upanga buildings conform to the permitted heights, the rest depict excessive heights. Zone A in Kariakoo has maintained the allowable height due to its location i.e. near Msimbazi flood plains in the Western side. As such, developers hesitate to invest in this area as a way to avoid flood related risks and high development costs. Housing redevelopment in zones A, D and E in Upanga comply with permitted heights, largely because of the nature of land use types (institutional, commercial-hotels with few residential buildings; and military area headquarters respectively). Professionals, commenting on the consistency and conformity with building heights in these zones, insisted that the presence of the national security centre (military headquarters) is the reason for other developers in the surrounding zones to adhere to the permitted heights. This adherence and conformity to formal regulations require enforcement and regular checks and balances.

Table 9.3: Permitted vs observed building heights in Kariakoo and Upanga (storeys)

Planning zone	Kariakoo		Upanga	
	Permitted	**Observed**	**Permitted**	**Observed**
A	0-2	0-2	4-7	4-7
B	2-4	7-14	10	19
C	5-7	8-11	5-8	24
D	8 and above	4-7, 8 and above	3-5	3-5
E	-	-	2-3	2-3
F	-	-	6-15	18
G	-	-	10-20	10-20

Source: URT (2002, 2006) and the Author, 2014

The construction of building beyond the prescribed standards, has given rise to loss of the pyramid sky-scape images of the neighbourhoods according to the redevelopment schemes (cf. Figures 6.6 and 8.3). The same experience was noted among the private large-scale developers in the redeveloping inner-city neighbourhoods of Nairobi (Huchzermeyer, 2007: 723-728). She found that when developers got building permits, they did not use the approved plan standards on building heights. As a result, in areas where the plan recommended four or five storeys i.e. three or four floors above the ground, developers put up six to seven storeys just when the Council was sleeping (ibid: 728). These trends show weak follow up and or corruption practices by local authorities in such building construction areas. The results also imply that in prime areas where land, housing values and possibilities to get returns are high, developers or investors tend to violate the existing urban planning laws and regulations for the sake of maximizing housing space production if planning authorities are not keen to effect proper development control.

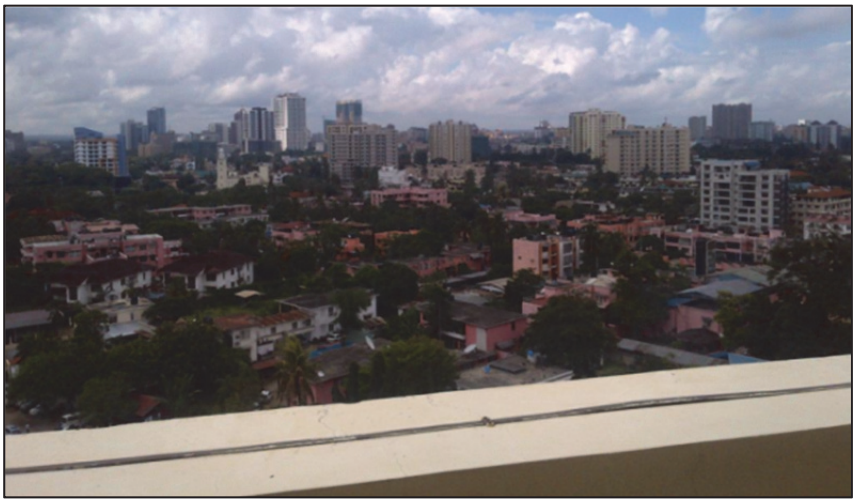
Equally, developers in both case studies sullied the statutory provisions regarding floor area ratios. As long as most buildings in Kariakoo are commercial-residential (82.1%), it was expected that developers would respect the floor area ratio of 3.6. Results from calculations show that the ratios of five to twelve storey buildings in different zones in Kariakoo were beyond the allowable limit by 15.6% to 177.2%. In Upanga, except zones with low-rise buildings, the same

trend was noted. FARs were from 6.0 and above as compared to the recommended 4.0; an increase by 50% of the permitted ratio.

In conclusion, plot setbacks, coverage, building heights and floor area ratios have revealed high densities in both cases. Based on the results, it is fair to say that excessive densification and gentrification processes are more critical in Kariakoo than in Upanga. Except few pockets with single storey traditional buildings, almost the entire Kariakoo is redeveloping in a continuous and uninterrupted manner and with excessively densities which are far beyond the prescription in the approved building plans (cf. Figure 9.4). The Western area of Upanga, particularly at Mindu and Kalenga Streets and along UN Road, is experiencing high densities due to conversions of existing dwellings taking place. Besides the Western part and areas along major roads which exhibit continuous redevelopment, densification processes in other areas of the settlement is done in a leap-frog manner (cf. Figure 9.5).

Figure 9.4 Continuous densification in Kariakoo

Figure 9.5 Leapfrog densification in Upanga



Source: http://www.skyscrapercity.com/showthread.php?t=1739276&page=9

High density characteristics observed in Kariakoo and Upanga can also be witnessed in the neighbouring Western planned areas where redevelopment processes are shifting to. These areas include Ilala Boma and Magomeni in Ilala and Kinondoni Municipalities respectively. However, densification processes are more evident in Ilala Boma due to the fact that Kariakoo is almost fully redeveloped compared to the level of densification processes in Upanga.

9.11 Functional and morphological changes of buildings over time

Change of use of a large number of residential units into commercial-residential and commercial use in the two cases, as Table 9.4 illustrates, has been a significant phenomenon in the recent time. Besides, market forces and location as the primary driving factors for land use change and redevelopment dynamics, others include the functionality of the area. In terms of functions, in the previous chapters I discussed about Kariakoo having transformed into a business hub. This attribute has been a catalyst for land use changes from residential since the 1920s to mixed commercial-residential uses in the recent time. Likewise, Upanga follows the same trend but in this case, land use changes are brought by the area becoming a residential, large-scale commercial and institutional neighbourhood. This implies that as the city sprawls, built-up areas particularly those surrounding or closer to the CBD change in terms of use, functions and form.

Table 9.4 Change of land use patterns for Kariakoo and Upanga (1920s-2014)

Area	Land use changes over years				
	1920s-1950s	**1960-1978**	**1979-2000**	**2002-2012**	**2014**
Kariakoo	Residential, commercial single detached to 4 storeys	Residential, commercial 1-5 storeys	Residential, commercial, commercial-residential 1-8 storeys	Commercial, commercial-residential 1-7 storeys except zone D	Commercial-residential 1-17 storeys
Upanga	Residential 1-3 storeys	Residential 1-5 storeys	Residential 1-5 storeys	Residential, commercial-residential, institutional 1-14 storeys	Residential, commercial-residential, institutional 1-25 storeys

Source: Author's construct from field data, 2014

Another common feature in the two cases is the fact that area redevelopment plans were not prepared by considering issues related to land economics or land value appreciation, and effective demand of developers and customers in the future. Also, there were no clear mechanisms to ensure development control including enforcement of land use plans as per approved plans, standards and regulations as well as with regard to the Land Act No.4 (1999), and the Urban Planning Act No. 8 (2007) recommendations. The laws require planning authorities to prepare development plans prior to actual developments, enforce land use plans as well as development control.

Evidences for such scenarios are vivid in redeveloped areas of Kariakoo and Upanga which show that local authorities prepared new (land use) plans basing on the actual development. For instance, literature show that the preparation of Kariakoo and Upanga redevelopment plans of 2002-2012 and 2006-2026 respectively was influenced by the existing building construction activities and trends in the respective areas (URT, 2002; URT, 2006). However, actual developments show that developers are the main engines driving land use changes at the expense of approved or official land use redevelopment plans. This may also mean that the legal power vested to authorities to enforce approved land use plans is undermined or not effectively exercised. For example, Kariakoo redevelopment plan (2002) suggested 22.6% of land for commercial use while commercial-residential was 18.5%. Analysis of the current registered building projects showed that 82.1% of all registered building projects were commercial-residential while commercial use accounted for only 10.7%. Likewise, Upanga redevelopment

plan recommended commercial-residential land use to be 24.3% followed by institutional use by 24.5%, while residential was only 4.6%. According to the analysis, 67.7% of all registered projects undertaken in the area were residential and only 19.4% were commercial-residential. These facts show clearly that developers construct buildings of any type and use on particular plots regardless of the recommendations of the existing redevelopment plans. On the same aspect, Pelling and Wiser (2009: 133) on Kariakoo observe that as a result of non-enforcement of land use guidelines, change of land use of plots and buildings has increased as streets earlier planned for residential activities have been turned into commercial corridors, recreational grounds while other residential buildings have been developed into shops, hotels and guest houses.

9.12 Contradicting roles and power relations in development control

In Tanzania it [development control] is being done in an inconsistent manner. The approval of technical drawings submitted by a developer for the sake of a building permit is undertaken by a team of urban professionals: town planners, land officers, civil engineers and architects in their different capacities (see also sect. 12(1) of the Township Rules, 1930; Mwiga, 2011: 39). However, the roles, power relations and collaboration among professionals during the actual building construction diminish. In this phase, the Civil Engineer from the Works Department takes the lead and exercises powers above all the professionals. In other words, only the Works Department of a local authority, represented by the Civil Engineer, is responsible for the site inspection during building construction activities. Thus, the site inspection sheet provides a signature slot for the Civil Engineer only to approve construction activities in each stage. When remarking on this, one Senior Municipal Town Planner said:

> *"The Engineer might have passed and signed the site inspection sheet. As a town planner, if it happens that you go out for inspection and find something wrong with respect to space standards, you end up telling what has been violated and they also promise to re-adjust. In reality they ignore it after you have departed. As one visits the second time and finds same problems s/he ends up insisting that the changes/corrections must be done... The inspection form gives room to the engineer only to put a signature to appreciate the activities accomplished at each stage of building construction. In most cases, more focus is directed on structural standards; less emphasis is directed on the issue of compliance with space standards and other land use regulations."*[100]

The quotation highlights two issues. First, the list of professionals and their roles as per section 12(1) of the Tanganyika Township Rules (1930) in planning and implementation of plans has life during the planning stage only. Although the framework requires them to take part in the development control particularly site inspection in the course of building construction, in reality this is not the case. This has created room for corruption among professionals (civil engineers) who may compromise standards and land use regulations during site inspection activities. Secondly, many disasters have emerged following the violation of land use development standards and regulations.

In response to development control practices in Tanzania, Dissanayake (n.d) and Aluko (2011: 169) affirm it [development control] as a tool for city management checks the menace of market forces and minimizes negative externalities of urban growth by ensuring continual growth

[100] Interview with Senior Ilala Municipal Town Planner, May 02, 2014

and management to an extent that orderliness, improved city image, health and aesthetics are achieved. It [development control] is a mechanism to maintain space standards laid down by legislation to regulate the development of land and buildings. Most important, it takes into account public rights in land use planning and development and not only private interests which are often driven by the market. Aluko (2011: 173, 176) adds that in order to have an effective development control there should be a department of development control with clear functions. In other countries, Nigeria inclusive, urban development control is a professional activity carried out by town planners in order to ensure compliance with approved space standards thereby ensuring orderliness (ibid: 173).

9.13 Summary

Land use change and house production and supply through different systems in inner-city areas as the study has shown are primarily driven by market forces and location. The different systems involved in the production or supply side of the market have added more housing units to the existing housing stock in the study areas. The increasing number of medium and large-scale developers has also increased the quality of units produced as well the prices and rents than the real income of the majority. This makes the market favour the affluent. Owing to high demand for houses and commercial spaces, land use changes and building space standards and regulations are increasingly deviating from the official standards and plans. The contributing factors include the desire by private developers to produce more space so as to maximize profit through renting or selling of housing units produced. The second is related to weak urban development control practices by responsible authorities when inspecting buildings in the course of construction. These altogether result into high densities which jeopardise street configuration, traffic movement and quality life within neighbourhoods.

In conclusion, it can be argued that the different systems involved in housing production are place-making strategies largely capitalizing on public space. Developers' altitude to maximize space use exactly blends with the notion: "you are creating a place, not a design." Related to this notion is the tendency of developers of not implementing the approved building designs by authorities during building construction. Instead, buildings are constructed beyond the prescribed official standards; which implies that house developers appropriate space designated for public use. Also, morphological and functional conversions of buildings in the study areas, i.e. from low-rise to high-rise buildings and from residential to mixed use, are forms of inner-city regeneration and gentrification approaches. Although, on the one hand, the approaches seem to create dysfunctional inner-city neighbourhoods due to disregard of approved building regulations and standards as well as homogeneous community of affluent households; on the other hand, the approaches have raised the quality of buildings and sustained private investment in the inner-city which altogether have led to a rise in property values.

Section four:
Summary of findings, conclusions and recommendations

10 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarises the major findings and draws conclusions regarding housing market (supply, demand) and the resulting urban morphology which is one of the outcomes of land use change and building spaces production processes. Also presented in the chapter are the recommendations for improving the housing market and urban development and management. Methodological reflections emanating from the results and conclusions follow before areas for further research are highlighted.

10.1 Summary and reflections on the main findings

The summary is organised according to the detailed research questions outlined in section 2.8 and empirical results presented in chapters five, six, seven and eight.

Housing units production/supply systems and driving factors

The study has shown that there are multi-faceted ways of producing housing units in the built-up inner-city planned areas whose current land values, with respect to their location in the urban continuum; do not match the type of building structures that still exist. At a large scale, housing space production involves demolition and new-construction, vertical extension and renovation (Figure 9.1). Analysis of the registered building projects over a 2006-2014 period show that 90.1% of housing units produced in the studied neighbourhoods are a result of demolition of single and 2-3 storey low-rise residential buildings and replacement by high-rise mixed use buildings. Minority, (9.9%) of the new units are produced and supplied to the market through extension, alteration and renovation. In most cases, vertical extension involves addition of one or two floors on top of built buildings which are often not completed during the initial construction stage because of financial limitations. Renovations are done by changing building materials e.g. from mud and pole to sand-cement blocks, corrugated iron sheets to tiles, and cement creed to tiles.

At a small scale, housing space is produced and supplied through horizontal extensions or alteration of original buildings and infill development. Horizontal extension and alteration are more apparent cases in Kariakoo and are being done by creating new communal spaces such as shops, informal garages, food vending outlets on the facades or extra residential (rental) rooms in the backyard of the old Swahili buildings. In this regard, two to four extra rooms are added to the original buildings on a 250m^2 plot area. This implies a remarkable increase of net floor areas of buildings as well as housing density (cf. Figure 5.6). Another form of extension which takes place on the sides of reconstructed high-rise buildings involves blocking side setbacks between buildings and constructing small building structures within that space particularly on the building facades. The structures, being ephemeral or more permanent, are mainly used by informal business operators. Alterations are achieved mainly by introducing new uses or changing uses of some rooms, closing main entrances on the frontage and opening new ones on the sides in order to create new residential units and commercial rental spaces (cf. Figure 5.7). On the other hand, infill development activities, which dominate in Upanga, comprise addition of single or double family or small rental buildings aligned with solid wall fences for commercial and office rental purposes in developed residential plots as an income diversification strategy (see Figure 7.4). Spaces created are normally used either as private retail shops, coffin outlets or pharmacies.

Pharmacies and coffin outlets are located along main hospitals as opposed to retail shops which are scattered all over within the area.

The research results on motivations to developers in engaging in real estate activities in Kariakoo and Upanga show that 92% of developers are attracted by high demand for commercial and residential use. Developers are attracted to supply more commercial than residential spaces in Kariakoo because the area has transformed from a residential area into a business centre with formal and informal business activities taking place. Therefore, rental charges for commercial spaces, though they are small in size ($16m^2$ on average), are higher than for residential apartments. Other indicators for higher demand for commercial spaces include early offers from would-be-tenants to developers when sign boards are placed on building construction sites; and pre-occupation of commercial spaces while building construction activities are still under way on upper floors. On the other hand, despite the fact that Upanga is also undergoing morphological and functional transformations, it is still a residential area. Therefore, there is high demand for residential use than for commercial use and so are the prices and rents. These two factors attract many developers to construct and supply more residential units than commercial spaces in the settlement.

The other main driver for the production and supply of housing units in the two settlements is location and proximity of the settlements to the CBD. The study areas, which border the CBD on the western side, were reported to accommodate functions more or less found in the CBD and they are also residential areas for some of the population working in there. On the contrary, the results reveal a general lack of knowledge and awareness by developers on the existing government plans for these settlements. In this case, only 6% of all developers were aware of the existing redevelopment plans to which housing development and investment in land has to make reference and adhere to. The majority, about 94% were aware of the existence and the contents of the plans in the course of applying for planning consents at the Municipality. This suggests a general lack of knowledge on housing development conditions and regulations as provided in redevelopment plans. The findings of this study confirm therefore that housing reproduction in case study areas is largely a response to market forces and remarkably influenced by the strategic locations of the sites. Government approved plans and policies play role but rather variably; with many developers disregarding such provisions as stipulated in the approved plans or in other official documents but others observing.

Developers, investment strategies, access to land and finance

In both cases, three classes of developers namely small, medium and large exist (Figure 9.2). Small-scale developers comprise only 10.8% of all developers and mainly include ethic groups, original land occupiers, their heirs/heiresses or those who team-up to undertake small-scale housing development projects. They usually extend existing buildings vertically or horizontally, renovate or reconstruct low-rise multi-storey buildings. Emerging low-rise buildings through vertical extension are limited to two or three storeys whose project costs range from TZS 20 to 200 million (US$ 12,500 to 125,000) as per 2013 prices. Housing units produced are often used for livelihood particularly income generation through renting, running own business in one of the commercial spaces on the ground floor or both in order to earn an income. The majority of developers are land original occupiers (through government allocation or inheritance) while the minority buy from original occupiers, heirs or heiresses in order to produce housing units. Small-scale developers finance building construction activities mainly from own savings, local financial

associations or groups particularly SACCOSs and informal social financing groups locally known as UPATU. Owing to the stringent conditions for mortgage finance or housing loans in local banks, this group does not rely on this source. Therefore, only few developers in this group finance building projects through mortgages or housing loans obtained from local banks such as NBC, CRDB, Access Bank and Bank ABC.

Medium-scale developers (about 42% of all developers) in the two settlements comprise mainly individuals of Asian origins, local private real estate development companies, public agencies and few real estate companies of foreign origins. Housing development involves demolition of original low-rise buildings and replacing them with high-rise buildings with five to eight storeys costing between TZS 201 and 1,200 million (US$ 125,625-750,000) with respect to 2013 prices. Respondents affirmed that the main reason for engaging in real property activities is to improve life quality including income. In this regard, the majority of developers rent out residential and commercial units produced. In few cases, for developers of Asian origin, developers may also use the earnings to develop other housing units elsewhere. The dominant means of accessing building land are allocation and outright purchase from original occupiers or their heirs/heiresses. Such developers use own savings and mortgage finance from local banks to finance building construction activities, as developers in this category can meet bank conditions including evidences of other sources for repaying the loan and the ability to raise 25% of the total housing project cost.

The study has also confirmed that 47% of all developers are large-scale generally comprising local and foreign real estate development companies, the public real estate agency (NHC); often these are engaged in joint ventures. With an exception of NHC and few developers of Asian origins who were allocated land by the government in the past, the rest accessed building land by purchasing the 2-3 storey buildings from original occupiers. Later, these buildings were demolished and high-rise residential or commercial-residential buildings of more than eight storeys and valued between TZS 1,201 and above 2,200 million (US$ 750,625 and above 1,375,000) were constructed. While foreign developers prefer outright sale of housing units, NHC and the majority of local developers prefer renting out some of the units. NHC rents out some units as a policy matter provided by the shareholders. The research results also demonstrate that often the sizes of the buildings or housing projects undertaken do not always match the local housing financial resources in the country. As such, developers of foreign origins in particular seem to depend much on international sources.

In conclusion, it is evident that majority of small and medium developers finance building projects basically from own sources. This conclusion matches the results reported by Isaac (2007: 49). She notes that 95% of construction funds in Kariakoo are mobilized from own savings and 5% from local commercial banks. This is due to the fact that access to mortgage facilities is limited to a large extent by stringent conditions, including surrender of legal documents of immovable assets as collateral. The local capital provided by the majority of local financial institutions (TZS 500 million, equivalent to US$ 312,500) is not sufficient to finance huge building projects carried out by such developers. The study findings also reveal that foreign developers rely on foreign capital since they are allowed to remit proceeds and reimburse foreign loans as provided in section 21 of the Tanzania Investment Act No.26 (1997). Rothenberger (2010: 94), referring to this Act, notes the same and adds that foreign capital is more persuaded because the Tanzanian government imposes no major restrictions on foreign investors. In this regard, foreign investors are also often permitted to transfer net profits, fees and/or royalties unconditionally.

Land price and land transfer issues

The current conversions of low-rise residential buildings to produce high-rise mixed use buildings, coupled with the emergence of a commercialized land market under the absence of land regulatory instruments, have revealed a sharp increase in land prices in the two settlements. In the land transaction process the study noted the involvement of land sellers, buyers, agents, legal firms, urban authorities, other government agencies and the MLHHSD. Because of the involvement of such actors, the study expected to find a proper regulatory system on land issues particularly on land transaction and transfer. Interestingly, land transactions were done informally or quasi-formerly through, for instance, mutual understanding between seller and buyer, and sometimes agents who act as middle men than being guided and controlled by statutes. Owing to lack of transparency in land transaction coupled with absence of land market regulatory mechanisms, greedy for profits by land occupiers and agents often inflated land price. Many were also evading tax in the course of land transfer from sellers to buyers.

As a result, there have been sharp increases in land price particularly in Kariakoo within a period of 27 years (1988-2015). As records show, the price for an average 250m^2 plot was TZS 6.2 million in 1988 but by 2015 the price had increased to around TZS 1.2 billion (cf. Figure 9.3). Also emanating from lack of an effective land market, sellers deal with two selling agreements. The first agreement bears a genuine market price and the second, a reduced price for purposes of evading stamp duty tax. Urban planners and land officers who are involved in the land transfer processes noted that in Kariakoo, plot/house sale in the second agreement is at TZS 100-200 million (US$ 62,500-125,000) whereas in the first agreement the price may be TZS 800 million. During the transfer of land, agreements with lower prices together with lawyer's seal are submitted for Municipal approval; to TRA for paying stamp duty tax (10-20% of the selling price for resident and non-resident land buyers). This is done before the same is submitted to the Commissioner for Lands to effect the transfer and record ownership in the register in the name of the new occupier. Lack of regulation and transparency in land transaction processes make this kind of transaction inconsistent or simply a "black market".

Housing units produced/supplied

The quantity

Following housing production systems discussed above, the study observed a remarkable increase in housing stock at individual plot as well as settlement levels. On plots where housing space production is through horizontal extension and alteration of the traditional single family buildings; housing space in a single Swahili type building has increased from the traditional 6-8 rooms to 10-12 rooms. Each room has an average of 12m^2 gross floor area. Depending on the purpose of producing housing space, the additional rooms reproduced may accommodate an average of three to four families, or two families and three to four commercial activities. In most cases the quality of housing spaces produced is low because of the limited resources among most developers and engagement of unskilled artisans or informal contractors in the construction activities. Housing space production through infill development essentially adds one independent building structure in the built-up plot. Also, through vertical extension, and demolition-and-reconstructing, a minimum of three and a maximum of 25 storeys (24 floors) replace the traditional single and 2-3 storey buildings which dominated in the areas in the past. The newly constructed low and high-rise buildings, depending on the number of floors, can produce three to six commercial spaces with an average of 16m^2 each as well as three to over 30 residential apartments. The gross floor areas of residential apartments range between 80 and 214m^2. At

settlement level, official records indicate that the number of registered building projects, whose majority are high-rise buildings, has increased from 59 projects in 2006 to 522 projects by mid-2014.

The quality

The second theme investigated on as a way to analyze the housing units produced is housing quality with emphasis on the construction technology, services available, and furniture and fittings provided. Findings show that the aforementioned variables relate to the systems of producing housing units and the scale of developers. In this aspect, 50 out of 522 building projects were small-scale, and undertaken by small contractors mainly through a labour-based technology. The largest amount of building projects (314 out of 522) were under medium-scale developers whose construction activities were attended by medium contractors at moderate technology and a fairly moderate finishing. Yet, 158 out of 522 projects were owned by large-scale developers and constructed by big contractors at a fairly good and capital-intensive technology.

Regarding furniture and fittings, it was established that all developers provided fittings related to water and electricity supply, and sanitation systems in both commercial premises and residential apartments. The majority of residential (rental) apartments were not provided with furniture as 27 out of 33 developers claimed that the would-be tenants had diverse tastes and preferences on the type of furniture they want to use.

It is noteworthy that high rates of building transformations in the two neighbourhoods were not concomitant with the improvement and provision of public social and physical infrastructure services such as roads, water, electricity, solid waste and sanitation systems. As such, the available and dilapidated infrastructure especially water and electric supply; and sanitation systems do not cater for the current population as these areas experience serious deficiencies. Therefore, developers have provided underground water wells, standby generators and on-site sanitation systems for the irregular and inefficient water and electric supply, and sanitation systems. While Owens (2012: 14) notes that less than 1% of infrastructure construction contracts were available in Upanga over a period of seven years (2007-2012), findings of this study show absence of infrastructure provision or improvement initiatives in Kariakoo. Only part of Uhuru Road, i.e. from Msimbazi/Uhuru Round-about to Karume area was being improvement. Also, Msimbazi and part of Morogoro Roads were rehabilitated to accommodate the Bus Rapid Transit (BRT) system, currently being implemented in Dar es Salaam.

Housing cost dynamics

Investigations on prices and rents for commercial and residential housing units in the emerging high-rise buildings revealed a severe increase of rental charges for commercial and office spaces in Kariakoo than in Upanga. Conversely, residential apartments were charged higher in Upanga than in Kariakoo. Depending on the location, commercial and office premises with gross space area of $16m^2$ commanded US$ 20-31 per square meter per month as opposed to US$ 8-14 per square meter per month in the period of 2003-2007. Likewise, US$ 800 and 2,200 were set as monthly typical monthly rents for residential apartment in Kariakoo and Upanga. A single apartment, depending on the size (number of bedrooms) and location, was sold between US$ 85,000 and 370,000. Regarding modalities for payment for both rental and sale units, developers or house owners have adopted a similar arrangement. In this case, buyers are required to pay

100% of the apartment price or 50% down payment of the price, with an allowance of paying the remaining within six months by instalments. On the other hand, residential apartments are rented out at a minimum of 12 months upfront rent payment. Renters of commercial spaces had to pay full rent for a period of between one and three years at the beginning of the rental tenure.

On the basis of the fore-stated values, the study reveals the impacts of building densification processes, location aspects and commercialized housing market on housing prices and rental values. As pointed out earlier, the drivers for housing development and supply, rents for commercial spaces are stronger in Kariakoo than in Upanga because of the saturated transformation and gentrification processes in the area. As such, the area has transformed from a low-income residential area to a business hub with increasing formal and informal activities. However, Upanga settlement has remained a residential area largely co-inhabiting middle- and high-income households, despite gradual introduction of commercial activities.

The study concludes that in the two settlements, price and rent increase are dynamically related to a number of factors such as high demand for housing (deficit of three million in the country coupled with 200,000 annual demands) due to high urbanization rates and economic trends i.e. opening up of the economy to foreign investors. Also speculative behaviour by developers is another important contributing explanation.

Main customers of the resulting housing units

Responses from developers, urban professionals and quotes highlighted in the previous sections indicate that buyers and renters of housing units produced and supplied in the study areas are affluent households including single and married couples with 2-3 children. Yet, comparison between price and rental charges of the emerging housing units and income levels of workers in the public and private sector based on past and recent salary schemes indicated that renters, able to afford rents of residential apartments, must earn not less than US$ 938 per month i.e. US$ 10.4 purchasing power parity. According to ADB (2010: 3) and AfDB (2011a: 2) on income groups in developing countries, those households with purchasing power parity of US$ 10-20 are upper-middle. This further proves that those who can afford renting apartments are not low income households. The analysis further demonstrated that none of salaried person, who solely depends on his/her salary, can afford buying a two bedrooms residential apartment at a minimum price of US$ 87,500.

Buyers and renters are composed of variety ethnic groups, Tanzanians of Asian origins and few locals. These comprise the Chagga, Pemba, Kinga and other groups, largely prominent businessmen in the country or their children as well as high profile government officials or their siblings. The foreigner's group also includes ambassadors, diplomats, other foreign workers and businessmen. The Asian descendants consist mainly of Indians, Arabs and Chinese. The majority of ethnic groups, few Indians and Chinese descendants, ambassadors/diplomats and foreign workers were the main renters while prominent businessmen in the country, their children, high profile government officials or their siblings were testified to form the buyers' group.

Most had professional or technical skills employed in the private or public sector while others were self-employed. Responses from interviews with developers revealed that almost all household heads, except children and those who go to school in a household, are engaged in a certain productive activity within or in the surrounding settlements. Within the settlements, some work in banks, government institutions, embassies or consuls, private and public educational and health institutions, commercial centres and the majority were engaged in private businesses. For

instance, responses revealed that doctors of Indian origin who work in private hospitals live in the study areas as well as some specialists, especially pediatricians who own private clinics in the two settlements. The same response recurred to medical and academic staffs who work at the national hospital and in higher learning institutions.

In conclusion, the housing market follows facets of re-urbanization processes and invites wealthier people to redevelop and inhabit inner-city districts and gradually pushes the majority of low and middle income groups away. A small group of low income households remaining in such areas are those who have opted for joint ventures with affluent individuals or real estate companies. The housing market also behaves contrary to city revitalization and redevelopment concepts which aim to promote social diversity or heterogeneity, e.g. the compact city concept. In this regard, the gradual displacement of low and middle income households from inner-city redeveloping neighbourhoods to distant residential clusters, depict a sort of social segregation within core district residential clusters.

The resulting urban morphology

As the study reveals, the redevelopment processes taking place in the two settlements are mainly demand driven, no wonder developers maximize use of the land (plot space) so as to produce more housing space. By investigating the morphological and functional conversions of buildings in the study areas, conclusions on spatial conversions i.e. change of the characters of the street-scape were generated. Results on these parameters have generally postulated that the morphology of former building structures in the study areas has changed from single or two to three storeys to high-rise buildings. In terms of functions (use), the single or two to three family residential and residential-commercial buildings have been converted into high-rise multi-family commercial-residential buildings with up to 25 storeys.

Furthermore, an investigation on and analysis of density based on density elements (building lines, plot coverage, building heights and floor area ratios) was made in order to find out whether developers concur with standards stated in the official documents or not. Results from interviews and analysis of physical surveys reveal that high densities beyond the prescribed standards are due to two factors: disregard of building regulations by developers, and weak enforcement of development control by urban authorities. The study also observed that developers are not respecting building lines, plot coverages; building heights as well as plot ratios. This is being done at the expense of weak urban development control and developers aim to explore opportunities to maximize individual profits (see also Felbermair, 2012: 110). This practice contradicts section 12 of the Township Rules Cap.101 (1930) and Tanzania Building Regulations (2001) as well as section 7(5) of the Urban Planning Act (2007). The regulations require developers to comply with building regulations while authorities as planning bodies, among other things, are obliged to inspect buildings during erection and after construction works.

Urban professionals expressed strong feelings on higher densities attained in the two settlements. Results as per physical surveys also showed the same trend. Investigations on building lines, plot coverage, building heights and FARs as lenses of investigation showed that the minimum side, front and rear building lines as recommended in the planning documents have been reduced by more than 60%, resulting in high plot coverages (between 83% and above 90% in Kariakoo, and 75% and 88% in Upanga). Also, new high-rise buildings were 5-25 storeys in comparison with 20 storeys provided for in the redevelopment plans (see Figures 7.1 and 9.1).

Owing to excessive building heights and disregard of approved setbacks particularly on the facades, spatial conversions i.e. change of the characters of the street-scape in terms of facade reconfiguration were realized. The study observed narrower resulting street-scapes than those existed before transformation processes. The street widths were 15mRoW to 20mRoW while the tallest high-rise buildings along streets were 5-25 storeys high (nearly 15-75m). This contradicts with the basic principle that requires a minimum width of the street to be equal to the height of the tallest building along the street. Similarly, the high development pressures on land in these prime areas of the city have also claimed legitimacy on public spaces despite the values attached to in urban areas. In this regard, different actors ranging from developers to informal business operators have appropriated such spaces for private gains denying the public of their rights on available public spaces. As a result, the narrow street-scapes have been created and more critically the concentrations of informal businesses along streets have given rise to problems on traffic movement i.e. vehicular and human congestions, and personal insecurity leading to dysfunctional urban neighbourhoods.

The resulting urban morphology was also linked with weak checks-and-balances on development control by responsible urban authorities. Although there exists an urban development control section to monitor and regulate land use in the municipality, development control is one of the weakest sections of urban management in the country (Kombe and Kreibich, 2006). Koenigsberger (1975), Rivkin (1978) and McAuslan (1985) further note that development control practices are inappropriate, ineffective and inequitable in their operation in most Third World cities due to transplanting of regulations that have evolved in different social soils with differing political and economic climates.

10.2 Recommendations

With regard to the summary of the findings basing on research questions and conclusions arrived at in section 10.1, the following actions are put forward to enhance a proper functioning of housing market and urban development in Dar es Salaam and other urban centres in Tanzania with similar contexts.

Balancing and regulating land/housing market

- Recommendations for the central/local government

Clear policy and legal framework on land and housing supply

Dar es Salaam City, the country's commercial capital and a home of over 4.5 million of the total country's population, has around 3.0 million dwellers in the rented sector. The research carried out in this Metropolitan City has confirmed that land and housing markets are inelastic or imperfect leading to irregular prices and rents in different neighbourhoods and in the city at large; mainly favouring the affluent households. Moreover, price and rent paying modalities require tenants to pay a minimum rent of twelve months, 100% of the housing price or a down payment of 50%. These conditions are too taxing on part of tenants and buyers and lack legal basis. In other words it can be said that house sellers and landlords seem to have powers to dictate prices, rents and paying modalities. The prevailing situation on property market – housing prices and rents are basically related to lack of transparency and legal framework which balance the demand and supply sides. Although the research has also shown that the existing land and housing markets operate freely being driven by market forces; I argue that free market without robust regulating mechanism is as good as a tinkling cymbal and detrimental to the national development as it may undermine real estate investment in the long run. In this regard, developers

and landlords not only seem to be exploiting home buyers and tenants but also denying the low income households from accessing decent and affordable housing; particularly because they are also evading tax which the state could use to reach the poor. This reality, basing on the results, inter alia shows lack of a clearly defined institutional framework for regulating land and housing markets.

Thus, there is a need for the central government to clearly define the policy and institutional framework including a framework to regulate housing market with clearly defined procedures, actors and their roles in the markets. A thorough review and revival of can also play a big role in regulating property markets. This includes the 2004 repealed Rent Restriction Legislation to take over its role of regulating rents and the law should also put prices and rents ceilings based on per capita income. Despite the sharp increase of real property activities in the country, the central government also needs to regulate inflated interest rates fixed by banks because they claim too high risks which are not always the case. These recommendations will not only be beneficial for home buyers, 3.0 million people who live in the rented sector in Dar es Salaam and 60% of the urban dwellers in the country who are renters but also to property developers.

Establishing a housing market information database

In most EU countries, housing statistics are centrally managed for public use. In Germany, for instance, information on housing market (Wohnungsmarkt) is provided at country, region (county), area and city levels. The database, among other things, includes information on the type of dwellings, tenure status, housing quality and affordability. In the Ruhr area in NordRhineWestfalen (NRW) where I lived for four years during my studies, housing database includes detailed information about the real estate market situation in a specific city within the region describing the existing housing stock (i.e. number, size, value, and condition), housing accommodation offers, demand-side information focusing on the characteristics of residents, and individual dwellings on the market over time (Gruber und Meininghaus, 2015). Although for local governments the database is a tool to balance the supply of and demand for housing, it is a way to regulate unnecessary price and rent inflation by house suppliers as varying rental ceilings are set in different areas depending on the economic status of the area and income levels of individuals.

Owing to this, the lack of centralized housing market information systems in Dar es Salaam city needs to be addressed. This does not only aim to tackle alleged developers' reluctance to pay the required property rent, but also to ensure that housing prices and rental charges are set according to housing standards and affordability levels of would-be buyers and renters. I would suggest that to begin this at Municipal levels by making a thorough evaluation of individual buildings in the formal areas and it may extend to informal areas which provide rental accommodation to the majority of city dwellers.

Adopting PPP in social infrastructure provision or improvement

The World Bank (1993) suggests two actions of creating a well-functioning housing market environment particularly on the supply side. The first is concerned with the role of the actors on the supply and demand sides of the market; the second is related to the provision of technical and productive infrastructure services that allow a society to function on the supply side. Research result show that the rate at which housing units is produced and supplied to the market through different systems is higher than the quantity and quality of services available. The provision or

improvement of existing infrastructure services or provision of new ones has not been possible in the new settlements inter alia because there is no collaboration among actors in the planning stage.

Most developers are not poor and they contribute significantly to service provision through PPP. The recommendation is made basing on the capacity of developers to provide services particularly deep wells within their plots which cost millions of TZS following insufficiencies or failures of services provided by public utility agencies. This will be possible by making an investigation to know the costs of providing and maintaining alternative sources e.g. digging deep wells, providing infrastructure services and operation in individual homes. The total cost can be added to the budget of the utility agencies for the same project (improvement or provision) so as to match the current demands. This will substantially solve the existing problems, increase safety and a sense of ownership of such social infrastructure services among community members.

- Recommendations for financial institutions

Opening up mortgage finance and housing loans

In most countries property development depends on access to mortgage finance than on individual capital. Conversely, the findings of this study show that the majority of house developers use own funds as the available financial institutions provide low mortgage finance and housing loans that do not match the cost of buildings constructed in the study areas. For instance, in 2012/2013 the property development financing and mortgage market in Tanzania provided average mortgage size between TZS 50 million and 350 million ($31,000–$215,000). This limit had risen by 30% only in 2014 when this study was being carried out reaching US$ 312,500. As a result, most building construction projects are financed mainly from own sources as the study by Isaac (2007:49) notes that 95% of construction funds in Kariakoo are being mobilized from own savings and 5% from local commercial banks. In comparison with the costs of housing projects in the two settlements which amount to billions of TZS, it is obvious that the amount offered by financial institutions is not sufficient even to afford land cost in such areas. Some commercial banks have limited and restricted mortgage to their own employees making few available housing microfinance institutions (MFI), which basically provide soft housing loans. Basically, this is an option for housing loans to low and middle income groups. The study recommends therefore that financial institutions need to increase the availability and amount of mortgage financing and housing loans. Secondly, mortgage finance or housing loans should be provided within less stringent conditions e.g. not considering the ability of the mortgagee to be able to finance 25% of the total building project cost. This condition can be merged into other conditions such as the type of referees and the possession of immovable assets by the mortgagee or borrower. This will motivate and enable low and medium-scale developers to access mortgage finance or housing loans countrywide.

Comprehensive visions for urban development

- Recommendations for central/local governments

Making development plans public

In most developing countries, preparation and implementation of development plans such as master plans, redevelopment schemes and layout plans are still done through top-down approach. The general public is involved when there are specific needs such as land acquisition for public use. Even after the preparation, the plans remain in shelves in urban authorities while the general public is denied access to them. This has created legacies in complying with standards and

regulations as stated in the planning documents. The negative responses (70% in Kariakoo and 84.6% in Upanga) on being aware of changes of government policies or plans in their areas of jurisdiction as a motivating factor towards housing supply is a proof that development plans are not exposed to the general public as one of the important group of actors in the implementation of the plans. Respondents said that they knew the contents of the plans in the municipality during the application of planning consents. This is spiced by section 21 (1) and (2) of the Urban Planning Act (2007) which mentions relevant planning authorities and the Regional Secretariat as the main custody of the approved planning schemes. In my opinion these are still high planning levels for the general public to have access to approved planning schemes of respective local areas. The study therefore applauds for an open access to information on urban land use planning. The planning authorities are urged to provide soft and hard copies of area-specific land use plans to grassroots institutions (ward and sub-ward headquarters) under the custody of Ward and Sub-ward Executive Officers as part of a decentralized planning and governance system. The general public or individual developers can seek to know development conditions of specific planning zones from these grassroots institutions before advancing to higher levels for the application of planning consents and building permits. It would also be of great achievement to conduct public meetings and present the contents of land use plans.

Actors in building/urban development control

Effective urban development and management is enhanced by different public, private and civil society actors. In achieving this, the prevailing institutional framework needs to make clear the roles and responsibilities of the different actors in the public, private sector as well as the civil society organizations. Moreover, the institutional framework should state the composition of and rationale of task forces as far as urban planning, development and management is concerned. On this aspect Aluko (2011: 169) cautions that development control requires special skills as a result of daily problems which authorities confront, including the sheer size and rates of urbanization.

On enforcement of development control, the study observes little coordination of actors particularly the composition of the site-inspection team. In this case only the Department of Works under the headship of the District Engineer of the responsible local authority is involved; the Civil Engineer being the only responsible personnel for building site inspection assignments. However, the question that remains unanswered is whether s/he fulfils the duties or not. In reality, physical site visits are rarely made to ensure that developers comply with building regulations and standards coupled with undue excuses to developers and corruption to urban professionals. These are the main reasons reported for the bulk of spatial problems persisting in Dar es Salaam Metropolitan. As a custom, site-inspection sheets are signed in offices and sometimes in restaurants during lunch time for developers to get the inspection sheets signed and a token provided to the inspector. As a consequence, neighbourhoods become denser, lack aesthetics and buildings are structurally weak; altogether denying the image of the global metropolitan areas and mega-cities.

The study recommends the same urban professionals who form the team to approve technical drawings for issuing building permits to form the site inspection team, exercising the same roles and responsibilities. This will minimize the chances to maneuver approved building regulations and also corruption to all urban professionals forming the site-inspection team. Although some authors e.g. Dissanayake (n.d) point out lack of resources by planning agencies in developing countries to perform efficient and effective development control, this might be true to rural authorities particularly district councils with reference to fiscal budgets for fuel and lack of

vehicles. In terms of effecting development control in nearer areas this is not the case because the use of cars is not important. Training of barefooted land development officers at Mtaa/Ward level i.e. training MEO and WEO to carry out this at least certain functions as their routine functions and create incentive mechanisms to hold the accountable can be a solution for the limited capacity of staff. Nonetheless, with reference to Tanzania, lack of human resources might be the case in rural local authorities but in urban authorities e.g. cities, municipalities and townships it is not. In these areas, some urban professionals seem to have no specific duties to perform and they usually sit on their desks waiting to be assigned duties. Sometimes they appropriate and use public resources such as time (official working hours) and equipment to deal with private deals.

Lastly, the private and civil society sectors including individuals should be empowered and encouraged by law to report on space and building standards malpractices to the urban development control team or to the respective planning authority.

Undertaking routine development control inventory

Closely related to the above, the study also recommends that the Section of Physical Development Control at the MLHHSD and that in the Municipalities should undertake a routine development control inventory on quarterly basis as a way of cross-checking whether developers maintain development conditions and the intended use of buildings or they do not. This exercise can initially be undertaken in hot spots areas and later on spread in other areas. AQRB, Eastern zone has already started a similar exercise on registered building projects in Dar es Salaam done on quarterly basis. This exercise is named as verification of scope of building construction vs development guidelines and planning standards. The exercise will also include identification of and restoration of public spaces which have been appropriated by developers for the sake of personal gains. With this routine in place, the aforementioned malpractices by developers which have led to dysfunctional urban environments are expected to be reduced.

- Recommendations for professional boards

Zero tolerance for professional misconduct

While presenting the empirical findings I visibly showed how public urban professionals behave against the stipulated code of conduct. Apparent cases include being corrupt in the course of executing urban development control exercises, using sub-standard building materials as well as delegating site-supervision duties to non-professional foremen during building construction activities. Yet, no disciplinary actions by professional registration boards have been reported on these malpractices in some apparent cases except the building collapsing cases whereby only the District Engineer was charged. The study recommends therefore that professional registration boards such as AQRB, CRB and TPRB, in collaboration with the Prevention and Combating of Corruption Bureau (PCCB), should institute severe disciplinary measures including deregistration, termination of service and practicing as urban professionals when found guilty or observed behaving professionally irresponsible.

10.3 Reflections on the conceptual framework and methodology

The framework that guided this research which was formulated from literature, urban residential cluster models particularly the multiple nuclei model and the Neo-Weberian approach (Figure 2.5). It helped in locating the case studies within Dar es Salaam City as well as characterizing them in relation to land and housing market operations. Moreover, the framework helped to characterize different zones in the urban setting, understand land use types, housing production

systems, developers and their strategies and the dominant dwellers in each cluster. Although the conceptual framework emphasized location as the main driving factor for housing production, majority of developers were primarily motivated by market forces (high demand for commercial and residential housing units) to produce housing units in both settlements. This also confirmed the assumption that the on-going conversion of land use and dwellings in the study areas is demand-driven. Although location was noted the second driver that influenced house developers to construct or invest in Kariakoo and Upanga, I argue that location still is the key driver which attracts both developers where to supply and consumers to buy or rent. In other words, location remains the key determinant for land use, land value, housing price and rent.

Methodologically, this study employed a mixed methods research because of the nature of the research questions (how- and what-type questions). In order to adequately answer the research questions as outlined in chapter one, five research methods were used: interviews, photographing, observations, archives (documentary evidence) and physical surveys. Qualitative methods, mainly interviews, aided collection of qualitative and few quantitative data particularly on housing market operations while archives and physical surveys were used to capture quantitative data e.g. use of plot space during housing development. Basing on the allocated resources (time and finance), the results obtained through the use of these methods fulfilled the requirements of the study.

However, although the methodology used helped to gather the intended data, field experience showed that a more participatory action research e.g. ethnography and participant-observations was required. This is due the fact that these techniques emphasize close, intimate, and active involvement in the processes or events taking place. They are also strongly linked with the goal of studying others. The use of this approach on the qualitative part in particular by conducting more detailed and life story interviews, and participant observations; could help learn more, get deep insights and detailed information from respondents. For instance, limited time and finance did not allow soliciting and witnessing actual land and housing transaction processes. Moreover, issues related to the issuance of building permits and changes effected after approval, and tendency in site inspection i.e. who did what, how and why it was done were not well explored and captured. The use of a participatory research can extend the empirical results I came up with in this work.

10.4 Limitations of the study and recommendations for further investigation

The study, because of limited resources (time and finance), was not able to achieve a thorough coverage of the demand side of the housing market; the main focus was on production/supply side and the use of building land. Therefore, the author recommends three major themes for further investigation.

The first relates to a thorough study on the demand side of the housing market in the selected settlements by identifying and detailing socio-economic characteristics of customers of the emerging housing units.

The second is concerned with establishing parameters for housing market information database relevant to Tanzania which can also be used in property valuation and taxation. The database should also be integrated in Geographic Information System (GIS) application.

The last is on a study in order to develop a mechanism of determining ceilings of land/housing market prices and rents based on the country's GDP and average per capita income as a useful tool for controlling land and housing prices and rents in urban areas as well as harmonizing the housing market.

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APPENDICES

Appendix 1: Interview guides for preliminary interviews

1a: Interview with public urban professionals

My name is Fredrick Magina, an academic member of staff at Ardhi University and a PhD student at the TU Dortmund University, Germany. The working title of my research is *"Housing market in redeveloping inner-city areas in Dar es Salaam: Supply dynamics and their effects on the urban fabric"*. Currently, I am collecting data and I would like to hear some experiences from you as far as urban housing market and urban development is concerned.

I have some questions that I would kindly request you to answer. It is voluntary to participate and I will not write your name in the report if you wouldn't like it. You can also stop the interview anytime during the discussion as you would wish to do so.

Name of interviewee:.....
Title/Designation:.....
Work station (Municipality):.....
Name of interviewer:.....
Date:.....

A: Changes of housing structure

1. General functions of a professional
2. (a) Do you observe any changes of building structures in the city?
   (b) What are the type(s) of changes?
3. (a) In which settlements do you observe such changes?
   (b) What are the indicators for the changes?
4. What are the driving factors for these changes
5. How do the changes take place e.g. demotion of old single storey houses and replacement, etc.
6. City areas (inner, intermediate or peri-urban) and neighbourhoods where changes highly take place
7. (a) What is the trend and extent of housing transformation/development in these areas (from 1990s-date)?
   (b) Do you have supporting documents e.g. aerial photos, area layout plans, requests of change of land use, etc.?
8. (a) What were the structures of the original building structures (in terms of storeys) before the changes?
   (b) What are the emerging housing types after the conversion?
9. Who are the developers (private, public, or JVs)
10. (a) In which areas of the city does each group prefer for investment?
    (b) What are the investment strategies of each group in a specific area?

B: Rationale between urban planning and developers

11. What are the roles of house developers and urban professionals in housing development?

C: Customers and their characteristics

12. Who are the targeted customers and what are their characteristics?

D: Selection of sub-cases

13. Basing on the above responses and on your own opinions, which areas or neighbourhoods qualify or do not qualify to be sub-study areas? (Use the table below to select). What are your arguments for or against these areas?

Areas	Status	Location in the city	Housing supply dynamics	Major land use and density changes in the urban continuum	Emerging house types	Main developers	Rank

Thank you for your time and participation

1b: Interview with private urban professionals

Name of interviewee:.....
Occupation (profession):.....
Company's headquarters (Street &Municipality):.....
Name of interviewer:.....
Date:.....

A: Changes of housing structure

1. What are the field(s) of your business?
2. (a) Do you observe any changes of building structures in the city?
   (b) What are the type(s) of changes?
3. (a) In which settlements do you observe the changes?
   (b) What are the indicators for the changes?
4. What are the driving factors for these changes?
5. How changes take place e.g. demotion of old single storey houses and replacement, etc.?
6. City areas (inner, intermediate or peri-urban) or neighbourhoods where changes take place
7. (a) What is the trend and extent of housing transformation/development in these areas (from 1990s-date)?
8. Do you have supporting documents e.g. aerial photos, area layout plans, requests of change of land use, etc.?
9. (a) What were the structure of the original buildings (in terms of storeys) before the changes
   (b) What are the emerging housing types?

   (b) The emerging housing types afterwards?

10. Who are the developers?
11. (a) In which areas of the city does each group prefer for investment?
    (b) What are the investment strategies of each group in a specific area?

B: Rationale between urban planning and developers

12. What are the roles of house developers and urban professionals in housing development?

C: Customers and their characteristics

13. Who are the targeted customers and what are their characteristics?

D: Selection of sub-cases

14. Basing on the above responses and on your own opinions, which areas or neighbourhoods qualify or do not qualify to be sub-study areas? (Use the table below to rank and select).

Areas	**Status**	**Location in the city**	**Housing supply dynamics**	**Major land use and density changes in the urban continuum**	**Emerging house types**	**Main developers**	**Rank**

Thank you for your time and participation

1c: Interview with Tanzania Investment Centre - TIC

Name of interviewee:.....
Title/Designation:.....
Work station:.....
Name of interviewer:.....
Date:.....

1. What is the role of TIC in creating conducive environment for real estate development in the country?
2. Do you have the names or list of real estate investors/developers in Dar es Salaam?
3. What are their categories (local/foreign) and type (private, public, JVs)? Which criteria do you consider in the categorization?
4. What type(s) of buildings (single story, multi-storey) does each group prefer constructing?
5. In which areas of the urban setting (CBD, inner, intermediate or peri-urban) does each group prefer investing?
6. What are the main use(s) of the buildings constructed by each group? In which part(s) of the city is each type of use constructed?
7. What are the investment strategies of each group?
8. For whom (low, middle, high income households) are the housing units?
9. Are the buildings (housing units) for sale or rent? Which is more common?
10. What is your role in helping developers in accessing land and finance for housing development?

Thank you for your time and participation

1d: Interview guide for Business Registrations and Licencing Agency - BRELA

Name of interviewee:.....
Title/Designation:.....
Work station:.....
Name of interviewer:.....
Date:.....

1. Do you have a database for real estate investors/developers in Dar es Salaam?
2. What has been the trend of the number of real estate investors/companies over time?
3. What are their categories (local/foreign)? Which criteria do consider in registering them?
4. What are the main types of developers (private, public, partnering) and the nature of their activities?

Thank you for your time and participation

Appendix 2: Interview guides for detailed interviews

2a: Interview with public urban professionals

My name is Fredrick Magina, an academic member of staff at Ardhi University and a PhD student at the TU Dortmund University, Germany. The working title of my research is *"Housing market in redeveloping inner-city areas in Dar es Salaam: Supply dynamics and their effects on the urban fabric"*. Currently, I am collecting data and I would like to hear some experiences from you as far as urban housing market and urban development is concerned.

I have some questions that I would kindly request you to answer. It is voluntary to participate and I will not write your name in the report if you wouldn't like it. You can stop the interview anytime during the discussion as you would wish to do so.

Name of interviewee:.....
Title/Designation:.....
Work station (Municipality):.....
Name of interviewer:.....
Date:.....

Part I: Access to land

1. Can you briefly describe your functions?
2. Do you observe any changes of building structures in the city?
3. Where (in which settlements) do you observe these changes? What are the indicators?
4. What do you think are the reasons (driving factors) for these changes?
5. How do these changes take place?
6. Who are the developers [local, foreign companies/agencies (private/public/partnering)]?
7. In which areas of the city where building transformation or redevelopment take place at higher rates?
    i. Inner-city areas
    ii. Intermediate areas
    iii. Peri-urban areas
8. What are the types of land tenure system(s) in each area and what is the dominant tenure system?
9. Which public infrastructure services are available or provided by the public utility agencies and their capacities? Which ones are provided by developers?
10. How do developers acquire land for housing in this area?
    i. Use allocated land
    ii. Buy from original land occupiers
    iii. Other means
11. Who are the customers of the new housing units? Describe them in terms of their occupation, family status, their family size, the type of resources (capital, social, financial and natural). Use percentages to rank them.
12. Who are the actors and their roles in the land market and what are the procedures involved?
13. Do developers maintain the planned land uses in this area?
14. If no, what are the new land uses introduced by developers
15. Why do developers introduce new land uses?

Part II: Building regulations and housing development in practice

16. Is there any tool to guide urban/housing development in this area?
17. What are the regulations, laws or standards that ensure proper housing development in this area?

18. Do these conditions apply in every neighbourhood of the city or each has its own?
    i. Apply everywhere
    ii. Each neighbourhood/settlement has its own

    If they do not apply everywhere provide official evidence
19. Are developers informed about these conditions?
20. From question 17 above, do developers adhere to these conditions?
21. If yes, to what extent?
22. If no or partially, why and how do you handle the situation as one of your responsibilities?
23. In your opinion, what do you think, in terms of legal and administrative procedures, needs to be improved? How should the improvements be made?

Thank you for your time and participation

2b: Interview with private real estate professionals, agents and developers

Name of interviewee:.....
Occupation (profession):.....
Company's headquarters (Street &Municipality):....
Name of interviewer:.....
Date:.....

Part I: Type of developers, scale, origin and investment strategies

1. What are the type(s) of activities which your company deals with? Tick the appropriate one(s).
   i. Real estate development
   ii. Real estate planning
   iii. Real estate investment and management
   iv. Real estate consultation
   v. Real estate agency
2. Is your company local or foreign? Where does it originate from?
3. How do you categorise your company/agency (small, medium or large scale)?
4. What are the criteria for the classification?
5. If the company/agency is local, is it private, public or joint venture?
6. What are the objectives of the company/agency?
7. What reasons prompted you to engage in real estate activities in this area and not somewhere else?
8. If your company/agency deals with activities i-iv in qn. 1 above, in which part of the city (inner, intermediate or peri-urban) does your company/agency carry out more projects/investments?
9. What are the reasons for carrying out real estate activities in this/these areas?
10. Does your company/agency construct houses or flats for sell, rent or both? Why?
11. What type of buildings do you construct?
    Low-rise buildings
    High-rise (multi-storey) buildings. Specify the max. and min. number of storeys

12. How many buildings/housing estates do your company/agency own and where is each located?
13. Do you prefer investing: more in commercial buildings than in residential buildings or vice versa and why?

Part II: Access to land and finance

14. Which strategy does your company/agency adopt in the supply of housing units?
    i. Demolition of old houses
    ii. In-fill development
    iii. New development in the peri-urban
    iv. Others (specify)
15. How do you access land for housing development?
    i. Buying from original occupiers
    ii. Buying from the government
    iii. Appropriating land for public use
    iv. Others (specify)
16. What was/is the dominant land tenure system?
17. Do you maintain the tenure system or you change it? If you change explain the procedures you adopt in transferring ownership.
18. Is there any case where housing development process involves change of land use?
19. If the answer is yes, what are the procedures you went through for the change of land use?

20. List the procedures/steps in accessing land according to your choice(s) in question 15 above.
21. Who are the actors involved in each step and what are the role(s) of each actor?
22. What challenges do you encounter in each step and what do you think are the causes of the challenge(s)?
23. What do you propose to be done so that access to land for real estate development is streamlined?
24. What are the sources of finance for housing development?
    i. Own sources
    ii. Borrowing
    iii. Other sources (specify)
25. If the source of finance is borrowing, where (institutions) specifically do you borrow and what are the conditions?
26. How do you consider the original house owners in the new buildings?

Part III: Customers, their characteristics, housing marketing and access to housing units

27. Who are your main customers? Provide names if possible
28. What are the characteristics of the household heads (occupation, family status and size, type of resources, etc.)?
29. What characteristics do customers consider in choosing to buy or rent your housing units in each part of the city?
    i. Housing quantity considerations:
    ii. Housing conditions (quality) considerations:
30. What are the preferable house sizes by the customers and what are their subsequent prices and/or rents? Do you have house layout plans?
31. Which ways do you use to make the housing units known to customers and why?
32. Which steps, including requirements in each step, should customers go through in accessing housing units?
33. What is the rent paying modality that you prefer and what are the enforcement modalities (contracts, any other legal procedures)?
34. Are your contracts in written or oral form?
35. If they are in oral form, how do you enforce them?

Part IV: Building construction in practice

36. What are the characteristics of the plots?
    Sizes of plots
    Their location
    Type of infrastructure available
37. In developing the plots above, do you adhere to any building regulations or standards in your investments?
38. If the answer is yes, what are the building standards that you consider and how do you translate them on the ground?
    a. Building lines (distance from buildings)
    b. Plot coverage
    c. Number of storeys
    d. Floor area ratio (FAR)
39. What are the minimum and maximum limits that you adopt?
40. How did you know about the building standards and regulations stated above?
41. Do you think it is important to have such rules and regulations? Why do think it is important?
42. Do you consider an outdoor space in your investment?

43. If the answer is yes, what are the intensions, in terms of functions, of the left outdoor space?
44. In your opinion, what do you think (in terms of legal and administrative structure) needs to be improved? How should the improvements be made?

Thank you for your time and participation

Appendix 3: Interview guides for supplementary Interviews

3a: Interview with the Resident Magistrate at Kariakoo Primary Court

Name of interviewee:……
Occupation (profession): …….
Location (Street &Municipality): ……
Name of interviewer: ……...
Date: …….

Access to land

1. How is land for housing redevelopment accessed in this area?
    i. Buying from original occupiers
    ii. Buying from the government
    iii. Others (specify)

2. What was/is the dominant land tenure system?
3. Do new land buyers maintain ownership of the former occupier or do they change? If they change explain the procedures they adopt in transferring ownership.
4. Who are the original land/house sellers?
5. Who are new land/house buyers?

6. Why is your institution involved in the land transaction process?

Thank you for your time and participation

3b: Interview with Gerezani sub-ward leaders

Name of interviewee: ……
Occupation (profession): ……...
Location (Street &Municipality): ….....
Name of interviewer: …….
Date: ……...

Part I: Type of investors, scale, origin and investment strategies

1. How is housing produced in your area of jurisdiction?
2. What do you think are the reasons of redeveloping housing units in these ways?
3. Who are the main developers?
4. Do they prefer investing more in commercial buildings than in residential buildings or vice versa and why?

Part II: Access to land

5. How do they access land for housing development?
   i. Buying from original occupiers
   ii. Buying from the government
   iii. Others (specify)

6. What was/is the dominant land tenure system?
7. Do land buyers maintain the ownership of the original occupiers or do they change? If they change explain the procedures they adopt in transferring ownership?
8. How is your institution involved in the land market?

Part III: Customers, their characteristics and access to housing units

9. Who are main customers for the newly constructed buildings? Provide few names if possible.
10. What are the characteristics of the customers (e.g. occupation, family status and size, resources, etc.)?
11. What characteristics do customers consider in buying or renting housing units in this area?
    i. Housing quantity considerations: as answered about depending on family size.
    ii. Housing conditions (quality) considerations: finishing style, designs.

12. In your opinion, what do you think (in terms of legal and administrative structure) needs to be improved? How should the improvements be made?

Thank you for your time and participation

3c: Interview with financial institutions (NBC, Access Bank, CRDB)

Interviewee: …….
Position: ……...
Branch: ……
Date: ……
Interviewer: …….

Provision of mortgage finance or housing loans

1. Does your institution provide mortgage finance or housing loans to developers? If yes, what are the conditions?
2. What is the payback period?
3. Do you accept any person (Tanzanians only or even foreigners)?
4. Is registration with TIC one of the securities (for foreigners)?
5. What is the limit for mortgage finance or loan?

Thank you for your time and participation

3d: Interview with formal business operators

Interviewee: …….
Occupation:……..
Business type: …….
Street: ……
Date: ……
Interviewer: …….

Part I: Access to housing units (Procedures, information flow and actors)

1. When did you establish your business?
2. Where did you start running your business (place)?
3. What motivated you to start your business in that area?
4. When did you shift to Kariakoo/Upanga?
5. Why did you shift to this area?
6. How did you get information on the availability of vacant commercial spaces in this area? Who are involved?
7. How did you go about in order to secure this space and who were involved?
8. What was the rental charge when you started your business in this area?
9. What is the common size of commercial spaces in this area?
10. Have there been any changes in rental prices? When were they and how much was charged?
11. What were the reasons for the changes?
12. What is the current common payment modality? Has it been the same in the past? If no, why has it changed?
13. In your opinion what do you propose to be done in order to have a regulated housing market in this area?

Part II: Solid waste management

14. How do you manage solid wastes generated from your business?
15. Who are other actors involved in the management?
16. What role does each actor play?

Thank you for your time and participation

3e: Interview with pedestrians and informal business operators

Interviewee: …….
Occupation:……..
Street: ……
Date: ……
Interviewer: …….

Part I: Time of arrival and reasons for moving in the area

1. When do you usually arrive in this area?
2. How congested is the area during this time?
3. Why do you come in this area and not elsewhere?

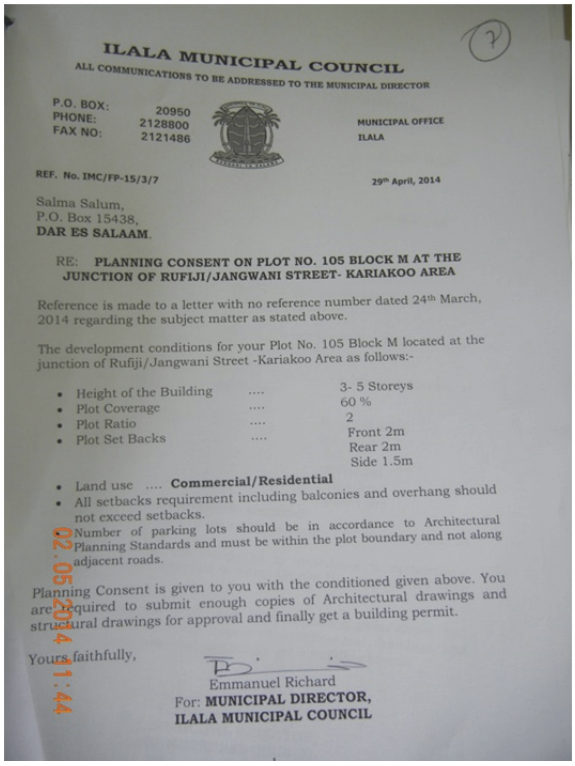
Part I: Use of public space (roads, arcades)

4. What are the types of public spaces you know in this area?
5. What are their conditions? Have there been efforts to maintain their conditions?
6. Who are the main users of such public spaces?
7. Who have more right to use them than others? Why do you think they have more right?
8. What are the challenges of using such spaces?
9. How do you respond to those challenges?
10. What do you propose to be done so as to overcome the challenges you mentioned?

Thank you for your time and participation

Appendix 4: Official planning standards from extracts of planning consents

4a: Official standards in Kariakoo (Medium zone)



ILALA MUNICIPAL COUNCIL

ALL COMMUNICATIONS TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

P.O. BOX: 20950
PHONE: 2128800
FAX NO: 2121486

MUNICIPAL OFFICE
ILALA

REF. No. IMC/FP-15/3/7

29th April, 2014

Salma Salum,
P.O. Box 15438,
DAR ES SALAAM.

RE: **PLANNING CONSENT ON PLOT NO. 105 BLOCK M AT THE JUNCTION OF RUFIJI/JANGWANI STREET- KARIAKOO AREA**

Reference is made to a letter with no reference number dated 24th March, 2014 regarding the subject matter as stated above.

The development conditions for your Plot No. 105 Block M located at the junction of Rufiji/Jangwani Street -Kariakoo Area as follows:-

- Height of the Building .... 3- 5 Storeys
- Plot Coverage .... 60 %
- Plot Ratio 2
- Plot Set Backs .... Front 2m, Rear 2m, Side 1.5m
- Land use .... **Commercial/Residential**
- All setbacks requirement including balconies and overhang should not exceed setbacks.
- Number of parking lots should be in accordance to Architectural Planning Standards and must be within the plot boundary and not along adjacent roads.

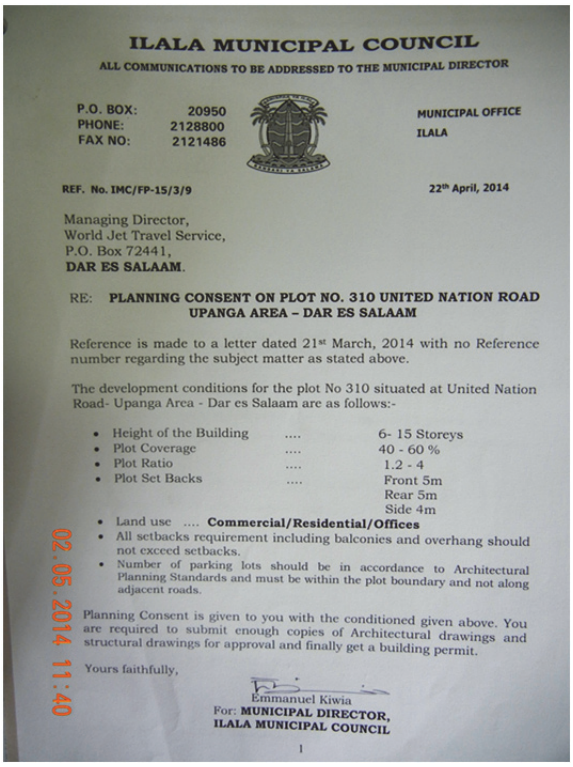
Planning Consent is given to you with the conditioned given above. You are required to submit enough copies of Architectural drawings and structural drawings for approval and finally get a building permit.

Yours faithfully,

Emmanuel Richard
For: **MUNICIPAL DIRECTOR,**
ILALA MUNICIPAL COUNCIL

02.05.2014 11:44

4b: Official standards in Upanga (Zone F)



ILALA MUNICIPAL COUNCIL

ALL COMMUNICATIONS TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

P.O. BOX: 20950
PHONE: 2128800
FAX NO: 2121486

MUNICIPAL OFFICE
ILALA

REF. No. IMC/FP-15/3/9

22th April, 2014

Managing Director,
World Jet Travel Service,
P.O. Box 72441,
DAR ES SALAAM.

RE: **PLANNING CONSENT ON PLOT NO. 310 UNITED NATION ROAD UPANGA AREA – DAR ES SALAAM**

Reference is made to a letter dated 21st March, 2014 with no Reference number regarding the subject matter as stated above.

The development conditions for the plot No 310 situated at United Nation Road- Upanga Area - Dar es Salaam are as follows:-

- Height of the Building .... 6- 15 Storeys
- Plot Coverage .... 40 - 60 %
- Plot Ratio .... 1.2 - 4
- Plot Set Backs .... Front 5m, Rear 5m, Side 4m
- Land use .... **Commercial/Residential/Offices**
- All setbacks requirement including balconies and overhang should not exceed setbacks.
- Number of parking lots should be in accordance to Architectural Planning Standards and must be within the plot boundary and not along adjacent roads.

Planning Consent is given to you with the conditioned given above. You are required to submit enough copies of Architectural drawings and structural drawings for approval and finally get a building permit.

Yours faithfully,

Emmanuel Kiwia
For: **MUNICIPAL DIRECTOR,**
ILALA MUNICIPAL COUNCIL

02.05.2014 11:40

Appendix 5: Physical surveys

5a: Housing development practices

Name of the owner:……..…..
Location and address:.....
Type and use of building:.....
Name of the observer:……....
Date:……

Instructions:

1. Draw a sketch of building, a site plan and document all details in the plot i.e. spatial organisation of building(s). Put the dimensions of the plot.
2. Indicate the distance of the building being studied from the adjacent buildings.
3. Indicate any changes that have taken place for example addition of a new building or number of floors in the same plot.
4. Take photos of each building studied to complement the figures recorded in the tables. Ask for house plans/architectural drawings
5. Study the adjacent neighbourhood and/or community and briefly state types of houses incl. number of storeys and street layout.

	Plot size (m^2)	House type(s)	Setbacks (meters)			Plot coverage (%)	No. of storeys	FAR	Outdoor activities	Street width (m)
			Side	Front	Rear					
Permitted standards Observed standards										
Remarks										

5b: Housing characteristics

Building materials											Average apartment size (m^2)	Status (full, partly, unfurnished). Specify services available	No. of apartments
Fence	Wall	Windows	Doors	Roof					Floor				
Hedges, blocks, steel bars, electric security wires	Bricks, blocks	Aluminium glass, wooden, window bars, etc.	Wooden, glass, bars, etc.	AS	T	CIS	C	CS	FT	O			

AS =Asbestos, T = Roofing tiles, CIS= Corrugated Iron Sheets, C= Concrete, CS = Cement screed, FL= Floor tiles, O = others (specify)

Appendix 6: List of interviewees

S/N	**Preliminary interviews**	
	Respondents	***No. of interviews***
1	Heads, department of lands and environmental conservation in three Municipalities	3
2	Head, urban planning department at DCC	1
3	Head, research section of the Tanzania Investment Centre (NIC)	1
4	Director, urban development control section in the Ministry	1
5	Private urban professionals/companies	3
6	Private and public real estate developers	4
	Sub-total	*13*
	In-depth interviews	
1	Senior urban planners in Ilala Municipality	1
2	Senior land officers in Ilala Municipality	1
3	Head, urban planning department at DCC	1
4	Head, enforcement-eastern zone of the AQRB	1
5	Director, urban development control section in the Ministry	1
6	Private urban professionals/companies	3
7	Private real estate developers	33
8	Public real estate developers	4
9	Financial institutions (banks)	3
10	Real estate agents/brokers	4
11	Gerezani area sub-ward leaders	1
12	Businessmen in Kariakoo	1
13	Kariakoo primary court magistrate	1
14	Pedestrians	2
	Sub-total	*57*
	Grand total	**70**

Appendix 7: Spatial density formulae

7a: Plot coverage

$$\textbf{Plot coverage} = \frac{\textbf{Area covered by the building(s)}}{\textbf{Site (plot)area}} \boldsymbol{x}\ \mathbf{100\%}$$

$$= \frac{\textbf{Built up area}}{\textbf{Plot area}} \boldsymbol{x}\ \mathbf{100\%}$$

Short description:
Plot (site) coverage is the percentage of the site covered by building structures, excluding public roads and footpaths. It is a control for the purpose of preventing adverse effects of over development, thereby safeguarding sunlight and daylight within or adjoining a proposed layout of buildings.

7b: Floor area ratio (FAR)

$$\textbf{FAR} = \frac{\textbf{Gross floor area of the building(s)}}{\textbf{Site (plot)area}}$$

$$= \frac{\Sigma\ \textbf{individual floor areas in the building(s)}}{\textbf{Site (plot)area}}$$

Short description:
Plot or floor area ratio (FAR) is a tool to help control the bulk and mass of buildings. It expresses the amount of floor space in relation (proportionally) to the site area

7c: Population density

$$\textbf{Population density} = \frac{\textbf{Total number of people}}{\textbf{Unit area}}$$

Short description:
This is a term used in urban planning and design to refer to the number of people inhabiting a given urbanized area. It is commonly represented as people per hectare, square mile or square kilometre.

7d: Housing density

$$\textbf{Housing density} = \frac{\textbf{Total number of building(s)}}{\textbf{Unit area}}$$

Short description:
In urban planning and design, the term expresses to the number of dwelling units in a given urbanized area. It is expressed as dwelling units per hectare or square kilometre.

Appendix 8: Real estate companies and organization in Dar es Salaam as of June, 2012

S/N	REG. No	NAME	ADDRESS	LOCATION	ACTIVITIES
1				MorogoroRd / BibiTiti Road/Azikiwe Street William Mkapa Towers	Estate Development, Planning and Investment
2				Samora Avenue, NIC Investment House	Estate Development and Project Management
3				Ohio Street	Real Estate and Project Planning and Management.
4				New Bagamoyo Road	Property Development
5				Sukari House	Real Estate Developers
6				Mtoni Opp Uhuru Stadium (Former National Stadium)	Property Developers, Real Estate
7				Samora Avenue Opp Karimjee Hall	Estate Agents and Property Development Agents
8	53079			Samora Avenue, NIC Investment House	Estate Agents and Property Development Consultants
9	47691			Zambia High Commission, Annex Building, Ohio Street / Sokoine Drive	Real Estate and project Management Consultants
10	58193			Plot No 8 & 10 Oysterbay Shopping Center (off Haille Selassie Rd)	Comprehensive Real Estate Services
11	25920			International House, Garden Avenue	Letting, Sales, Management, Valuation, Development Consultancy
12				Mikocheni Opposite Shoppers Plaza	Construction, Selling & renting of commercial, Residential, Office Premises Furnished and unfurnished.
13	32526			Manara Road, Ada Estate	Real Estate And Project Management Consultants
14	146765			Nkrumah Street	Estate Agent
15				PPF Tower Building, Garden Avenue/ Ohio Street	Valuers, Real Estate Agents, Property Managers & Maintenance, Cleaners Of Commercial & Residential Premises, Financial & Business Consultants
16				Nakiete House, new Bagamoyo Road Opp New World Cinema	Estate Agents, Valuers & Property Managers
17				Ocean Road Sea View	Real Estate Company
18	22164			Kelvin House Samora Avenue	Developers, Real Estate and Insurance Agents, Property Managing Agency, Land and Building Valuers
19	31449			TFC (Ushirika) Building, Lumumba Street	Valuers, Estate Agents, Project Appraisers and Land Use Planners
20	19368			Samora Avenue, NIC Investment House	Valuers, Real Estate Agents, Property Management and Land Resource Consultants
21				Sokoine Drive/Ohio, NIC Life House G/Floor	Real Estate Agents
22				Block 41 Kinondoni	Real Estate Agents
23				Old Bagamoyo Road	Unique Properties
24				Azikiwe Street, NSSF	Real Estate Agents, Developers

		Hifadhi House	& Valuers
25		Plot No 2222/129, Nkurumah Street	Real Estate Agents, Developers and Valuers
26		J.M. Mall, Samora Avenue	Apartments for rental Basis
27	32788	Old Mwenge Road, Agip House	Valuers, Property Managing Agents & Land Development Consultants
28		Plot 14, Ursino Area	Real Estate Agents, Property Management Agents, Land Development Consultants
29	39563	Samora Avenue, Nic Investment House	Valuers, Estate & Property Managing Agents, Land Development Consultants
30		Samora Avenue, NIC Investment Hose, 2nd Floor.	Valuation, Estate Management Consultants
31	75740	Alpha House 1st Floor Along New Bagamoyo Rd.	Real Estate Company
32	74911	Mbezi Beach Salasala Near RC.Church.	Real Estate Company
33	75046	Harrick Building Opp. IPS Chanika	Real Estate Company
34	75101	India/Clock Tower Sakina House 1st Floor	Real Estate Company
35	75198	Plot No 827/22 -1st floor Zanaki Street.	Real Estate Company
36	75365	Plot No 12 Block 75 Lumumba/Pemba Street 1st Floor	Real Estate Company
37	75435	Peugeot House 1st floor Upanga	Real Estate Company
38	75436	Plot no 295/B Mikocheni Dar es Salaam	Real Estate Company
39	75481	Plot No 944 Olympio Street Upanga	Real Estate Company
40	75514	House No MBB/MTK /98, Kigogo Luhaga	Real Estate Company
41	75541	Plot No 5/15 Mkwawa Road Oysterbay Kinondoni	Real Estate Company
42	75546	Plot No 106 City depot Building 1st floor Nyerere Road	Real Estate Company
43	75547	CO Architecture Building 2nd Floor Uhuru Street	Real Estate Company
44	75579	Plot No 130 Mikocheni B Hse N MKC/MCB/879 Kinondoni	Real Estate Company
45	75588	Plot no 21 Chole Road	Real Estate Company
46	75589	Block F Urafiki,DSM	Real Estate Company
47	75640	Plot No 180 Masaki off Chole Road	Real Estate Company
48	74062	Plot No 352 Makunganya Street DSM	Real Estate Company
49	74160	Plot No 822/9 NHC 2nd Floor Samora Avenue	Real Estate Company
50	74180	Plot No 17 Vingunguti Area	Real Estate Company
51	74197	Plot No 47 Block 9 Mwongozo Kigamboni.	Real Estate Company

52	74246	Plot No 46/266 Block B Mwenge Area	Real Estate Company
53	75789	Peugeot House 1st Floor Upanga Street	Real Estate Company
54	75826	Plot No 610 Block D Umoja Street Mbezi Beach Dar es Salaam	Real Estate Company
55	75911	Plot No 94 Liwale Street Mwembe Yanga Temeke	Real Estate Company
56	75933	Plot No 74/1 & 76 Block A Mji Mwema Kigamboni	Real Estate Company
57	75935	Plot no 367 Mikocheni A Opposite TANESCO Kinondoni office	Real Estate Company
58	75940	Haidery Plaza 1st Floor Suite No 10, Upanga/Kisutu	Real Estate Company
59	75970	Plot No 2004 Kawe Beach Kinondoni	Real Estate Company
60	75985	Plot No 70 Banda la Ngozi Nyerere Road.	Real Estate Company
61	76273	IPS Mezzanine Floor, Posta Ilala.	Real Estate Company
62	76283	House No 538 Kinondoni	Real Estate Company
63	76371	Plot no 2 Block C, Sinza Kinondoni	Real Estate Company
64	76541	Plot No 9 Mikocheni Light Industrial Area	Real Estate Company
65	76562	Plot No 183 Shoka Street Magomeni	Real Estate Company
66	76570	Plot No 106 Block 27 suite 203Ali Hassan Mwinyi Road.	Real Estate Company
67	54837	Plot No 294/101 India Street	Real Estate Company
68	54847	Plot No 32 Ursino Regent Estate Kinondoni	Real Estate Company
69	54877	Plot No 8 Block 41 Kawawa/ Ali Hassan Mwinyi Road	Real Estate Company
70	54914	NIC Life House 7th Floor Apt 12 Ilala	Real Estate Company
71	54920	Plot No 50 3rd Floor, Mirambo Street	Real Estate Company
72	54842	CRDB Azikiwe Bldg 5th Floor Room No 20	Real Estate Company
73	55099	Plot No 3 Zanaki street	Real Estate Company
74	55140	Plot No 37 Migero Road Changombe Industrial Area	Real Estate Company
75	55150	Plot No 1034 Msasani Penninsular	Real Estate Company
76	55204	Plot No 2 Block A Msasani Village	Real Estate Company
77	55268	Plot No 385/32 Samora / Bridge Ilala	Real Estate Company
78	55299	PLOT No 294 / 101 India Street	Real Estate Company
79	55455	Life House 7th Floor Kivukoni/Sokoine Drive	Real Estate Company

80	55527	Plot no 13 Osman Towers Zanaki Street Ilala	Real Estate Company
81	55528	Plot No 2098 / 5 Ocean Road Sea View	Real Estate Company
82	55612	Twiga House 3rd Floor Sokoine Drive	Real Estate Company
83	55636	Lamada Apartments Ilala Boma	Real Estate Company
84	55649	Plot No 80 Mindu Street Upanga, Ilala	Real Estate Company
85	55655	Plot No 816 Mikocheni	Real Estate Company
86	55668	KKT 1201 Tegeta Kinondoni	Real Estate Company
87	56735	Plot No 2176/205 Nkrumah Street / Lugoda Street, Ilala	Real Estate Company
88	56822	Plot No 31/32 Nyerere Road	Real Estate Company
89	56824	Plot No 15 Block 73 Mahiwa Street Kariakoo	Real Estate Company
90	56874	Water Front Sokoine Drive /Azania 7th Floor	Real Estate Company
91	56882	Plot No 35 Lindi Street Ilala	Real Estate Company
92	56894	Plot No 23 Ocean Road Sea View Upanga.	Real Estate Company
93	56902	Plot No 292 Vijibweni Street Upanga	Real Estate Company
94	56903	Plot No 292 Vijibweni Street Upanga	Real Estate Company
95	56952	Plot No 97-99, 110-3 Nyerere Road Dsm	Real Estate Company
96	56976	Plot No 97-99, 110-3 Nyerere Road Dsm	Real Estate Company
97	56895	Plot No 12-D Nyerere Road Ilala	Real Estate Company
98	57015	Plot No 331/36 Mkwepu Street	Real Estate Company
99	57027	NSSF Water Front Building Sokoine Drive	Real Estate Company
100	57054	Plot No 71 Ali Hassan Mwinyi Road	Real Estate Company
101	57063	Plot No 125 Mwakalinga Road Chang'ombe	Real Estate Company
102	57262	Old Post Office 1st Floor	Real Estate Company
103	57272	Plot No 188 Chang'ombe Area Temeke	Real Estate Company
104	57281	At the Claudios Secretarial Services Kinondoni Sec/School	Real Estate Company
105	57284	Peugeot House 1ST Floor, Upanga	Real Estate Company
106	57385	Plot No 27 Millennium Towers Kijitonyama	Real Estate Company
107	57388	Unit II Sea Cliff Toure Drive Masaki	Real Estate Company
108	57491	Plot No 11 Maweni Kizani Area Mji Mwema	Real Estate Company
109	57546	Plot No 83 Morogoro Road	Real Estate Company

110	57643	Plot No 177 Mbezi Beach Kinondoni	Real Estate Company
111	57683	Mbezi Beach Plot No 126/B	Real Estate Company
112	57783	Plot No 46/4 Nyerere Road Temeke	Real Estate Company
113	57823	Plot No 446/2 Upanga Charambe	Real Estate Company
114	57835	Plot No 320 Nkurumah Street Ilala	Real Estate Company
115	57956	Plot No 567 Kibo Road Mikocheni Kinondoni	Real Estate Company
116	58197	Plot No 42 Block S Likoma/Masasi Ilala Street	Real Estate Company
117	58205	Plot No 357 UN Road Imma House, Upanga	Real Estate Company
118	58219	Maarifa House Ground Floor Ohio Street.	Real Estate Company
119	58248	T.B.S Complex Ubungo	Real Estate Company
120	58252	Harbour View Tower, Unit 217 2nd Floor Samora Avenue	Real Estate Company
121	58624	Plot No 184/15 Masaki	Real Estate Company
122	58748	Plot No 12 Uporoto Street Ursino Estate Kinondoni	Real Estate Development
123	58771	Plot No. 442 Mahando Street Msasani Peninsular	Real Estate Development
124	58855	Plot No 405 Mahando Street Masaki	Real Estate Development
125	58859	Plot No. 60-69 Plot No. 45C Kijitonyama	Real Estate Development
126	58869	Plot No. 26 Mikocheni Industrial Area	Real Estate Development
127	58871	Plot No. 491 Shekilango Road Kinondoni	Real Estate Development
128	58891	Plot No. 1107 Msasani Peninsular Kinondoni	Real Estate Development
129	58941	Plot No. 385/B Samora Avenue	Real Estate Development
130	58948	Plot No. 11 Block 4 Lindi Street Ilala	Real Estate Development
131	59069	Plot No. 60-69 Block 45 C Kijitonyama	Real Estate Development
132	59112	Plot No. 924 Block B Msasani Pennisular	Real Estate Development
133	59252	Plot No. 2311/81 Samora Avenue Ilala	Real Estate Development
134	59340	Plot No. 62/63/64 Kilwa Road Mbagala Temeke	Real Estate Development
135	59346	NSSF Building Samora Avenue	Real Estate Development
136	59366	Plot No. 11 Block 48 Kariakoo	Real Estate Development
137	59427	Plot No. 2293/13 Block A Upanga Road Cresent Building Shop No. 2	Real Estate Development
138	59446	Office No. 12 CCM Kisutu Building Mrima / Mtendeni	Real Estate Development
139	59485	Plot No. 103 Kinondoni A.	Real Estate Development

140	59493	House No. 344 Mbuyuni Changanyikeni.	Real Estate Development
141	59499	Plot No. 24 India Street Ilala.	Real Estate Development
142	59508	Plot No. 8/1 Toure Drive Tumbawi Road Oysterbay	Real Estate Development
143	59525	Plot No.38 Migero road Chang'ombe .	Real Estate Development
144	59526	Plot No. 1459/94, Indira Gandhi Street .	Real Estate Development
145	59569	Plot No. 1084/159 Nkrumah Street.	Real Estate Development
146	60601	Plot No. 707/24 Mkwepu Street Ilala.	Real Estate Development
147	60737	House No. 55 Plot No. 29 Windi Street Kariakoo.	Real Estate Development
148	60760	House No. 45 Aggrey Street Kariakoo Ilala.	Real Estate Development
149	60805	Hosco Building 2nd Floor Room No. 43 Ilala.	Real Estate Development
150	60851	Plot No. 331/36 Mkwepu Street.	Real Estate Development
151	60940	Plot No. 101 Sikukuu / Kipata Street Ilala.	Real Estate Development
152	60945	Plot No. 27 Nyerere Road	Real Estate Development
153	60946	Plot No. 137 Block 41 Kumbukumbu Str. Kinondoni	Real Estate Development
154	60968	Plot No. 743 Swahili / Matumbi Street Ilala.	Real Estate Development
155	60984	Plot No. 78 Upper Volta Temeke	Real Estate Development
156	61144	House No. P/056 Pugu Mpakani.	Real Estate Development
157	61287	Plot No. 134 Block A Nyara Road Mikocheni	Real Estate Development
158	61310	Plot No. 125 Mwakalinga Road Chang'ombe.	Real Estate Development
159	61428	Plot No. 357 UN Road Upanga C/o Imma Advocates	Real Estate Development
160	61447	Plot No. 576 Block D Mbezi Beach	Real Estate Development
161	79496	Plot No. . Annadil Burhani Complex Block Upanga Magore Str/Ali Khan Road.	Real Estate Development

Appendix 9: Samples of registered building projects in Kariakoo and Upanga

Appendix 9a: Registered building projects in Kariakoo in 2012

THE ARCHITECTS AND QUANTITY SURVEYORS REGISTRATION BOARD (AQRB) PARTICULARS OF PROJECT DATA BASE FOR KARIAKOO IN 2012			
NAME OF DEVELOPER	**TITLE OF PROJECT**	**LOCATION**	**PROJECT VALUE (TZS)**
	Additional of one floor	25 KariaKoo	147,000,000
	Petrol station office and canopy	24 Mchikichini Street	180,000,000
	Proposed commercial/residential	5&6 Pemba Street	187,000,000
	Proposed commercial residential	Kariakoo Street	192,214,330
	Proposed construction of residential building	3 Msimbazi Street	196,036,600
	Commercial residential	57 Narung'ombe Street	199,000,000
	Proposed construction of shops &flats	17 Mafia Street	240,122,862
	Residential building	975 Kariakoo	250,600,000
	Proposed commercial building	2 Lindi Street	330,645,000
	Proposed commercial building	246 Mtandi Street	417,000,000
	Proposed residential/commercial building	43 Kariakoo	451,500,000
	Proposed commercial building	20 Mafia Street	489,000,000
	Construction of 10 storey building	60 Likoma/Tandamti Str.	495,000,000
	Construction of residential/commercial building	06 Mchikichi Street	498,000,000
	Proposed commercial residential	Swahili Street K/Koo	500,000,000
	Commercial residential building	60 Faru Street	500,000,000
	5 storeys commercial building	66 Twiga/Nyamwezi Str.	600,000,000
	Proposed commercial residential	77K/Koo /Amani Street	688,000,000
	5 storey commercial/residential	69 Ndovu Street	700,000,000
	Proposed commercial building	25 Somali Street	700,000,000
	Proposed commercial/residential	25 Kariakoo Street	754,964,000
	Commercial/residential	Mhonda Street	756,000,000
	Proposed commercial building	37 Likoma Street	777,600,000
	Proposed residential house	13 Congo Street	789,107,586
	Commercial/residential building	21 Nyarun'ombe Street	861,280,000
	Commercial/residential building	37 Likoma Street	871,000,000
	Construction of commercial building	Tandamti Street	873,600,000
	8 storeys commercial residential	37 Kariakoo	885,000,000
	Proposed residential/commercial building	16 Narung'ombe Street	900,000,000
	8 storeys commercial/residential	36 Livingstone Street	925,000,000
	Commercial residential building	57 Tandamti K/Koo	936,000,000
	Proposed commercial building	8 Mchikichi K/Koo	946,000,000
	Proposed commercial building	17 Amani/Sikukuu Str.	950,000,000
	Proposed commercial/residential	18&19 Swahili Street	965,000,000
	Proposed commercial/residential	Shaurimoyo/Lindi Str.	966,700,000
	Proposed commercial/residential	Msimbazi/Kipata Street	967,000,000
	Proposed commercial building	17 Amani/Sikukuu Str.	998,000,000
	Proposed commercial residential	8 Sukuma /Kariakoo Str.	1,000,000,000
	Commercial and residential building	13 Kongo Street	1,045,500,000
	ROFLEX Tower	54 Uhuru/Livingstone Str.	1,069,974,000
	Commercial/residential	15 Mkunguni Street	1,100,000,000
	Proposed offices	10 Lumumba Area	1,200,000,000
	Commercial/residential building	40 Mahiwa Street	1,300,000,000
	Proposed commercial/residential	17 Mchikichini Street	1,336,811,970
	Commercial residential building	Msimbazi Street	1,400,000,000
	Apartments building	26 Narung'ombe Street	1,400,000,000
	Proposed commercial/residential	14 Narung'ombe Street	1,520,000,000
	Proposed residential house	3 Msimbazi Street	1,590,000,000
	Commercial/residential	13 Congo Street	1,672,800,000
	Proposed hotel building	5 Pemba Road Kariakoo	1,870,849,585
	Proposed commercial residential	Uhuru/Living Stone Str.	1,930,020,000
	Proposed commercial/residential	9 Mkunguni Street	2,100,000,000
	Construction of commercial/residential	Lumumba/Morogoro Road	2,162,140,553

	Construction of commercial building	42&43 Kariakoo	2,500,000,000
	Apartments house	993 Mfaume Street	7,000,000,000
	Proposed commercial/residential	158 Samora Street	7,000,000,000

Appendix 9b: Registered building projects in Upanga in 2008

THE ARCHITECTS AND QUANTITY SURVEYORS REGISTRATION BOARD (AQRB) PARTICULARS OF PROJECT DATA BASE FOR UPANGA IN 2008			
NAME OF DEVELOPER	**TITLE OF PROJECT**	**LOCATION**	**PROJECT VALUE (TZS)**
	Vertical extension one floor	420 United Nations-Upanga	69,431,910
	Extension of one floor	44 Upanga Area	130,000,000
	Proposed vertical extension 3rd	2111 Upanga Sea View	228,000,000
	Double storey residential house	324 Upanga	260,000,000
	Proposed residential building	643 Upanga	800,000,000
	Proposed residential house	20,90/67 Ali Hassan Mwinyi Road - Upanga	1,600,000,000
	Residential building	573 Mindu Street - Upanga	4,800,000,000
	Proposed apartment	477b Mindu Street - Upanga	6,450,080,500
	Residential house	60 Alykhan Road- Upanga	12,711,300,000
	Proposed new office development	1008 -Upanga	27,703,539,712
	25 storeys basement +terrace commercial	63/27 Upanga	40,000,000,000
	Residential/commercial building	572 Mindu Street Kinondoni	7,500,000,000,000